Chapter 4: Topical Guide to the NLSY79

4.1 Age

The following section discusses the age and date of birth variables associated with NLSY79 and NLSY79 Child respondents. In addition to the respondent-specific variables discussed in this section, information is also available on the age and/or date of birth for other household members; see the "Household Composition" section for details.

NLSY79

Date of birth information was collected from each NLSY79 respondent during the 1979 and 1981 interviews. The variable 'Age of R,' gathered during the 1979–83 surveys, is the self-reported age of the respondent as of the interview date. The NLSY79 main data files also contain a yearly created variable, 'Age of R at Interview Date.' These created variables are constructed using the 1981 date of birth information coupled with the 1979 birthdate for the 491 respondents not interviewed in 1981. Users should note that age of respondent variables from the Supplemental Fertility File (area of interest "Fertility and Relationship History/Created"), including 'Age of R at 1st Birth' and 'Age of R at Start of 1st Pregnancy,' have been constructed using the 1979 date of birth information.

Table 4.1.1 Age & Date of Birth Variables for Respondents: NLSY79 (1979–2002)

Variable	Date of Birth of R	Date of Birth of R	Age of R	Age of R at Int. Date
Area of interest	Family Background	Common	Family Background	Key Variables
1979	R00003., R00005.		R00006.	R02165.
1980			R02202.	R04965.10
1981		R04101., R04103.	R04105.	R06190.10
1982			R06501.	R08983.10
1983			R09001.	R11451.10
1984				R15203.10
1985				R18910.10
1986				R22581.10
1987				R24455.10
1988				R28713.
1989				R30750.
1990				R34017.
1991				R36571.
1992				R40076.
1993				R44187.
1994				R50817.
1996				R51670.
1998				R64798.
2000				R70075.
2002				R76812

Table 4.1.1 presents the reference numbers and areas of interest in which the more commonly used age variables can be found. Tables 4.1.2 and 4.1.3 depict age distributions of the NLSY79 for the 1979–2002 survey years. The first table uses the created variable 'Age of R at Interview Date.'

Table 4.1.2 Age Distribution of Respondents on Day of Interview (Unweighted Data)

Year	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	96	98	00	02
	Fielding Period (months)																			
Age	1-8	2-5	2-5	2-5	2-5	2-5	2-5	2-5	5-10	6-12	6-12	6-12	6-12	5-11	5-11	6-12	4-10	3-10	5-12	1-12
Not Int		545	491	563	465	617	1792	2031	2201	2221	2081	2250	3668	3670	3675	3797[1]	4050	4287	4653	4962
14	948																			
15	1566	977																		
16	1564	1532	986																	
17	1505	1510	1528	975																
18	1634	1462	1505	1504	1002															
19	1677	1551	1485	1515	1515	989														
20	1667	1603	1585	1484	1505	1488	971													
21	1682	1583	1620	1561	1510	1498	1492	869												
22	433	1576	1592	1617	1566	1487	1492	1417	593											
23		347	1600	1578	1657	1550	1443	1468	1420	280										
24			294	1596	1582	1626	1429	1409	1459	1391	395									
25				293	1621	1583	1351	1426	1378	1448	1425	285								
26					263	1578	1245	1330	1418	1397	1461	1382	339							
27						270	1248	1222	1338	1405	1410	1405	1200	318						
28							223	1208	1188	1355	1394	1420	1306	1207	383					
29								306	1199	1194	1374	1358	1265	1310	1204	276				
30									492	1215	1218	1385	1231	1247	1307	1198				
31										779	1235	1197	1165	1256	1258	1291	426			
32										1	693	1212	973	1137	1242	1222	1171			
33												792	1000	992	1153	1240	1235	450		
34													539	984	964	1155	1200	1141		
35														565	1002	951	1183	1204	160	
36															498	982	1093	1167	969	
37																574	909	1155	1111	371
38																	973	1056	1130	1058
39																	446	897	1093	1101
40																		930	1084	1074
41																		399	895	1081
42																			883	963
43																			706	813
44																			2	858
45																				405

[1] Two respondents had missing values for date of interview; therefore, age at interview date cannot be calculated. These respondents are included in the noninterview category.

Table 4.1.3 Age Distribution of Respondents on June 30th of Interview Year (Unweighted Data)

Year	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	96	98	00	02
	Fielding Period (months)																			
Age	1-8	2-5	2-5	2-5	2-5	2-5	2-5	2-5	5-10	6-12	6-12	6-12	6-12	5-11	5-11	6-12	4-10	3-10	5-12	1-12
Not Int		545	491	563	465	617	1792	2031	2201	2221	2081	2250	3668	3670	3675	3797	4050	4287	4653	4962
14	532																			
15	1547	517																		
16	1584	1508	518																	
17	1552	1532	1515	515																
18	1607	1505	1537	1508	516															
19	1708	1533	1506	1525	1511	510														
20	1662	1615	1550	1492	1536	1494	513													
21	1683	1562	1633	1537	1504	1521	1481	498												
22	811	1596	1571	1626	1549	1486	1508	1445	497											
23		773	1599	1565	1641	1536	1464	1474	1423	492										
24			766	1587	1583	1610	1446	1420	1461	1408	501									
25				768	1605	1565	1382	1419	1393	1452	1433	499								
26					776	1581	1229	1367	1394	1401	1465	1411	418							
27						766	1268	1209	1346	1382	1423	1421	1235	421						
28							603	1241	1181	1347	1394	1402	1286	1234	426					
29								582	1227	1186	1355	1379	1273	1287	1239	424				
30									563	1224	1207	1337	1227	1269	1283	1230				
31										573	1242	1174	1150	1232	1258	1261	405			
32											585	1232	969	1146	1242	1251	1197			
33												581	998	963	1142	1222	1230	397		
34													462	1003	962	1123	1204	1161		
35														461	1003	946	1185	1186	376	
36															456	984	1090	1176	1100	
37																450	910	1139	1149	337
38																	972	1074	1119	1050
39																	443	895	1097	1110
40																		940	1023	1072
41																		431	852	1082
42																			898	981
43																			419	830
44																				833
45																				429

Survey Instruments & Documentation: Questions regarding age of the respondent are located in Section 1 of the 1979 through 1983 questionnaires. Date of birth questions are printed in the first section of the 1979 and 1981 instruments. Age-related questions for family members are located in the 1978 *Household Screener* and, for subsequent years, on the *Household Interview Forms*.

Data Files: The 1979 and 1981 birth date variables have been placed, respectively, in the "Family Background" and "Common" areas of interest on the NLSY79 main data set. The 1979–83 age variables are located in "Family Background." The series of created age variables can be found in "Key Variables." The Supplemental Fertility File age variables can be found in the "Fertility and Relationship History/Created" area of interest. Persons using the NLSY79 Work History Data File will find both the 1979 and 1981 date of birth variables present. Age information for NLSY79 household members can be found in the "Household Record" area of interest.

User Notes: Refielding of the birth date questions in the 1981 survey was prompted by several factors. First, a number of discrepancies between birth dates found on the military file and the NLSY79 files were discovered. Secondly, a number of inconsistencies between age as recorded on the "Household Enumeration" and the main questionnaire were apparent. Differences between 1979 and 1981 birth dates remained for approximately 200–250 respondents after the 1981 fielding; editing on a case-by-case basis was performed by CHRR staff on only the 1981 variable.

Inconsistencies in age and/or birth date information may appear for a number of reasons: (1) Age and birth date information has been collected at multiple survey points, giving rise to respondent-reported inconsistencies; (2) respondents' ages for sample selection were based on date of birth information reported at the time of the 1978 household screening by individuals who may not have been the respondent; and (3) responses to interviewer check items, i.e., the age reported to the interviewer that determines when age-specific questions should be asked, may not be the same age as that calculated from previously reported age or birth date information. For example, a respondent whose age was 16 as calculated from the birth date reported in 1981 may have answered questions which were specific to a 17 year old. When analyzing age-related questions, the user may wish to review the birth dates as reported in 1979 as well as in 1981 if inconsistencies arise. It should be noted that eligibility for inclusion in this cohort was based on the 1979 age reports, as are weights.

Age Restrictions on Early Work Experience Data: In the early survey years, some restrictions were imposed on data collected on work experience, specific employers, and military service. These restrictions applied, for the most part, to those respondents under the age of 16 at the time of the 1979 survey, although some extend beyond that age. The following is a summary of age restrictions that can be found in the work and job experience sections of the 1979 questionnaire:

"Section 6–On Knowledge of and Experiences with the World of Work": Respondents who were 14–15 years old were skipped out after questions asking them their thoughts on certain kinds of jobs that people actually do, i.e., skipped out at Q.2. These questions are found in the "Attitude" area of interest.

"Section 7–Military": Those respondents 16 years and under at the 1979 and subsequent interviews were skipped past all military service questions. This age group was only asked three questions concerning attitudes on service in the military and the possibility of enlistment in the future (Q.72–Q.74). Variables from this section are found in the "Misc. 1979" area of interest, and for subsequent years, in both the "Misc. xxxx" and "Military" areas of interest.

"Section 8–On Current Labor Force Status (CPS Questions)": Those CPS questions concerning activity most of the survey week and CPS job (Q.1–Q.36) were asked of all respondents. However, those respondents ages 15 or younger were not asked the questions dealing with looking for work. Questions in this section are found in the "CPS" and "Misc. xxxx" areas of interest.

"Section 9–On Jobs": Information on school-related jobs is collected for 14- and 15-year-olds. School-related job information is also collected for other respondents who were not employed since 1978 and who were enrolled in regular school at some time since January 1, 1978. For those 16 years and older, information on all jobs since January 1, 1978, was collected. For all respondents, information was gathered on enrollment in various types of government-sponsored programs that provided jobs. These variables can be found in the "Jobs" and "Misc. 1979" areas of interest.

"Section 10–Jobs" (*Employer Supplements*, in subsequent survey years): Each job could be coded with one or more of the following:

- "If this job was part of R's school program, circle code "2" here"
- "If this job was part of a college work-study program, circle code "3" here"
- "If this job was a part-time job provided by the government, circle code "4" here"
- "If this job was a government-sponsored summer job, circle code "5" here"
- "If this job was part of a government-sponsored program for people not attending regular school, circle code "6" here"
- "If this job was part of any other kind of government-sponsored program, circle code "7" here"

If codes 4–7 above were circled, the job was identified as some type of government-sponsored job or government program providing a job. Respondents were asked the same questions about government jobs that they were asked about non-government jobs. However, an additional series of questions was asked about jobs identified as government-sponsored by one of the above codes. Jobs that were school-related/work-study programs can also be identified by the first two codes listed above.

For the first job listed (which should be the CPS job), 14–15 year olds were routed through the entire series of questions, whether or not the job was a government-sponsored job. For each additional job that

was not government-sponsored, 14 and 15 year olds were asked only a basic set of questions about start/stop dates, reasons for leaving (if applicable), and hours worked per week. For each additional job that *was* government-sponsored, all applicable information was gathered, regardless of the age of the respondent.

These variables can be found in the "Job Information," "Government Jobs," and "Misc. 1979" areas of interest. Users should keep in mind that some of the information contained in the "Job Information" variables will refer to government-sponsored jobs (and possibly school-related/work-study jobs), as general information was collected on these jobs as well.

"Section 11–On Last Job Lasting 2 Weeks or More": Information is regularly collected on the last job held. There is no age restriction. These questions can be found in the "Jobs before 1978" area of interest.

"Section 12–On Work Experience Prior to January 1, 1978": If the respondent was 19 years or younger at the time of the 1979 interview, s/he would have been under 18 before 1978, so the retrospective information for the time period prior to 1978 was not collected. However, respondents not enrolled in regular school at any time between January 1978 and the interview date, regardless of age, were asked about the first job they held for two or more months at which they worked 20 hours a week or more after they stopped attending school. Variables from this section are found in the "Jobs after School" area of interest.

"Section 13–On Government Training": All respondents enrolled in grades 1–12 are skipped over this entire section.

Comparison to Other NLS Surveys: Age data are available for all NLS cohorts. These variables include both the age of the respondents as of a fixed date during the initial survey year and as of the interview date in various years. Date of birth is also available for all cohorts. Consult the *NLS Handbook* or the appropriate cohort's *User's Guide* for information about accessing these data.

NLSY79 Children

The NLSY79 Child Data File contains a variety of age-related variables specific to (1) a child's birth date, e.g., 'Date of Birth of Child,' 'Child's Date of Birth'; (2) a child's age at various developmental/interview-related points, e.g., 'Age of Child at Interview Date of Mother,' 'Age of Child at Child Assessment Date,' 'PPVT Age of Child at Child Assessment Date'; and (3) a mother's age in relationship to her child, e.g., 'Age of Mother at Birth of Child,' 'Age of Mother at Birth of 1st Child.' Table 4.1.4 presents reference numbers and areas of interest for some of the more commonly used child and mother age variables. Table 4.1.5 depicts the distribution of the age of the child by the age of the mother at the birth of the child.

Two "age in years" variables are provided for each round of the Young Adult data collection. These two variables are age in years at date of interview and age in years on December 31 of the survey year. For 14-year-olds in the NLSY 79 Child sample, age as of December 31 of the survey years determines whether they are included in the Young Adult survey or the Child survey. Those who will be 15 by December 31 of the target year are interviewed as Young Adults. Additionally, users can find a date of birth variable restricted to children ever interviewed as Young Adults in the "YA Common Key Variables" area of interest.

Table 4.1.4 Age & Date of Birth Variables: NLSY79 Child Data 2000[1]

Variable	Date of Birth of Child	Age of Child at Interview Date of Mother	Age of Child at Assessment Date, Child Supp.	Age of Child at Child Assessment Date, Mother Supp.	Age of Mother at Birth of Child
Area of interest	Child Background	Child Background	Child Background	Child Background	Child Background
1979–85		C00038.–C00044.			
1986		C00045.	C00065.	C00066.	
1987		C00046.			
1988		C00047.	C00068.	C00069.	
1989		C00047.10			
1990		C00047.20	C00070.10	C00070.20	
1991		C00047.30			
1992		C00047.40	C00070.30	C00070.40	
1994		C00047.42	C00070.41	C00070.42	
1996		C00047.43	C00070.43	C00070.44	
1998	.	C00047.44	C00070.45	C00070.46	
2000	C00055., C00057	C00047.45	C00070.47	C00070.48	C00070.

[1] Reference numbers for 2002 have not been created at the printing of this guide. These numbers will be updated in the next edition.

Table 4.1.5 Distribution of Child's Age in 2000 by Mother's Age at Birth of Child: All NLSY79 Children Interviewed in 2000[1]

1998 Age	Age of Mother at Birth of Child																					
of Child	≤17	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37+	Total
<1																	11	26	27	34	35	47	180
1																2	36	35	37	33	24	23	190
2															3	40	38	33	28	19	10	30	201
3														6	47	28	53	37	31	17	24	11	254
4													11	43	48	50	44	31	29	18	13	1	288
5												4	47	43	51	53	43	21	26	26	2		316
6											7	47	50	51	48	49	31	19	17	2			321
7										5	52	62	70	56	44	46	31	25	4				395
8									4	42	67	57	54	43	42	31	4						410
9								4	48	57	63	61	70	38	41	33	8						423
10							4	46	56	68	71	57	45	45	24	6							422
11						5	36	80	62	52	56	53	50	41	5								440
12					5	53	77	57	48	44	57	54	39	8									442
13				6	41	65	53	66	63	54	61	41	10										460
14 (child)				13	26	22	24	26	20	21	25	5											182
14 (YA)			2	29	33	32	29	26	28	29	20												228
15		8	36	61	58	59	55	48	63	48	5												441
16	2	22	41	53	56	60	63	52	48	8													405
17	15	45	42	56	58	39	38	47	2														342
18	32	35	49	53	63	49	41	3															325
19	31	19	37	29	38	46	7																207
20+	36	44	31	50	33	1																	195
Total	116	173	238	350	411	431	427	455	442	428	484	450	449	385	354	349	326	231	199	149	108	112	7067

[1] Data for 2002 have been collected but processing was not complete at the printing of this guide. These numbers will be updated in the next edition.

User Notes: The creation procedures for age of mother variables present on the NLSY79 Child File are based on the 1979 NLSY79 date of birth information. Persons using age variables in conjunction with the child assessment data should read the cautionary notes in the *NLSY79 Child & Young Adult Data Users Guide*.

Survey Instruments: Many assessments are designed to be administered to select age groups of children. For example, Part D of the Motor and Social Development Scale is intended for children 10–12 months of age, while PIAT Math is administered to children whose PPVT age is 5 years or older. Since assessment dates are not always the same for the child and the mother, the age variable specific to the supplement that collected the data should be used. Prior to 1994, information on a child's date of birth from the *Children's Record Form* (*CRF*), an instrument used with the main NLSY79, was the source of birth date information for the *Child Supplements*. Beginning in 1988, a *Child Face Sheet* was introduced as an aid to interviewers in the calculation of child ages. This instrument contained a preprinted child birth date or a place for the

interviewer to record the child's date of birth from Part A of the *CRF* and provided a place for calculating child age and PPVT age in reference to the *Child Supplement* interview date. This paper *Face Sheet* was replaced in 1994 by a CAPI feature that computed child age so that interviewers could anticipate which assessments would be administered.

Data Files: Area of interest locations for some common age and date of birth variables are listed in Table 4.1.4. Area of interest locations for additional variables are as follows: the yearly and biennial "Assessment xxxx" files (child's PPVT age variables); "Natal" (child age in weeks feeding data); and "Family Background" ('Age of Mother at Birth of First Child' and 'Age of Mother of Child'). A child's birth date may occasionally be altered on the basis of new information received from the mother in conjunction with the internal evaluation procedures carried out at CHRR. Thus, in a small number of cases, date of birth and child age information may not be completely consistent across all survey rounds. (See Appendix 5, *NLSY79 Supplemental Fertility File* documentation, for a discussion of cases in which child information has been edited.)

Reference

Center for Human Resource Research, *NLSY79 Child & Young Adult Data Users Guide*, CHRR, The Ohio State University, Columbus, OH.

4.2 Alcohol Use

NLSY79

A series of questions, asked during the 1982–85, 1988–89, 1992, 1994 and 2002 surveys, elicited information on the development of drinking patterns, quantity of various alcoholic beverages consumed, frequency of use, impact of consumption on schoolwork and/or job performance, and types of physiological and behavioral dependency symptoms experienced by NLSY79 respondents. Information on familial history of alcohol abuse or dependency was collected during the 1988 survey and included a series of questions on whether relatives of the respondent had been alcoholics or problem drinkers, the relationship of the respondent to up to seven such alcoholic relatives, and the length of time, if any, that the respondent resided with each such relative. Table 4.2.1 summarizes the alcohol use variables collected for the NLSY79 and the survey years during which each type of variable was collected. As noted in this section, there is considerable variation in both the quantity and type of questions asked. Many of the NLSY79 alcohol use questions have been adapted from those asked in the National Health Interview Surveys conducted by the U.S. Census Bureau.

Two additional sets of alcohol use variables not included in Table 4.2.1 have been collected for select NLSY79 respondents: (1) alcohol use during pregnancy information was gathered for female respondents during the 1983–86, 1988, 1990, 1992, and 1994–2002 surveys and (2) the 1980 illegal activities supplement asked under aged respondents a question on the number of times they had consumed alcoholic beverages without their parents' permission.

Survey Instruments: Alcohol use questions can be found within the following sections of the youth questionnaires: Section 12 (1982); Section 13 (1983–85 and 1988); Section 11 (1989); 1992 *Self-Administered Drug Use Supplement*; and Section 12 (1994 and 2002). The alcohol use during pregnancy questions can be found in the "Fertility" section of the questionnaire.

Data Files: Alcohol use variables for all years except 1992 can be found within the "Alcohol" area of interest on the main NLSY79 data set; the 1992 variables are located in "Drugs." The alcohol use during pregnancy items are located in the various "Birth Record" and "Birth Record xxxx" areas of interest.

> ***User Notes:*** As Table 4.2.1 indicates, there has been considerable variation over the years not only in the types but the wording of alcohol use questions. The 1989 questionnaire, for example, combined the typically asked 'drinking ever interfered with schoolwork or job' questions into a single 'kept drinking even though caused problems with work/home/school' question but expanded the number of questions dealing with the impact of alcohol use on other aspects of the respondent's life (e.g., personal relationships, health, participation in outside interests and activities).

Table 4.2.1 Alcohol Variables by Survey Year: NLSY79

Item	Survey Years								
Quantity-Frequency	**82**	**83**	**84**	**85**	**88**	**89**	**92**	**94**	**02**
Ever had a drink	*	*	*	*	*	*		*	
Age when started drinking	*	*							
Age when started drinking at least once a month		*							
Had any alcoholic beverages in last month	*	*	*	*	*	*		*	*
Frequency of 6+ drinks one occasion in last month	*	*	*	*	*	*		*	*
# days drank in last week	*	*	*	*			*		
# bottles/glasses/drinks of beer/wine/liquor in last week	*	*	*	*					
# days drank in last month		*	*	*	*	*		*	*
# days had 1/2/3/4/5/6+ drinks in last month		*	*	*					
# days had hangover in last month		*	*	*					
Total # days had drink in last month		*	*	*					
Frequency of going to bars last month	*	*	*						
# drinks per day/# R usually has on days R drinks					*	*	*	*	*
Abuse-Dependency Symptoms									
Physiological/Behavioral Symptoms									
Felt aggressive/cross while drinking			*	*	*				
Got into heated argument			*	*	*				
Got into a fight			*	*	*			*	
Did things while drinking that caused others to be hurt						*		*	
Can't remember activity while drunk			*	*	*				
Tried to cut down or quit but failed			*	*	*			*	
Afraid might be/become alcoholic			*	*	*				
Spent a lot of time drinking/getting over drinking						*		*	
Sick/vomited after drinking						*		*	
Difficult to stop once started						*		*	
Sweat/shake after drinking						*		*	
Needed drink so badly couldn't think of anything else						*			
Drank more than intended to						*		*	
Got drunk instead of doing things supposed to						*			
So hung over that it interfered with things supposed to do						*		*	
Heard/saw things not there						*		*	
Difficult to stop until completely intoxicated			*	*	*				
Often take a drink first thing in the morning			*	*	*				
Hands shake in the morning			*	*	*				
Got drunk while drinking alone			*	*	*				
Kept drinking after promised self not to			*	*	*				
Had strong desire/urge to drink						*			
Found same amount of alcohol had less effect						*		*	
Found you had to drink more than once did to get same effect						*		*	
Continued drinking even though threat to health						*		*	
Continued drinking even though caused emotional problems						*		*	

Table 4.2.1 Alcohol Variables by Survey Year: NLSY79 (continued)

Item	Survey Years							
Lifestyle Symptoms (Impact on School, Work, Relationships)	**82**	**83**	**84**	**85**	**88**	**89**	**92**	**94**
Drinking ever interfered with schoolwork	*	*	*	*				
Drinking ever interfered with job	*	*	*	*				
Kept drinking even though caused problems with work, home, school						*		*
Stayed away from work because of hangover			*	*	*			*
Got drunk on the job			*	*	*			
Lost/nearly lost job because of drinking			*	*	*			
Drinking led to quitting job			*	*	*			*
Drinking hurt chances for promotion			*	*	*			*
Significant other left/threatened to leave						*		*
Arrested/trouble with police after drinking								*
Drink to keep from shaking after drinking/morning after drinking						*		*
Lost ties with/drifted apart from family members						*		*
Gave up/cut down activities/interests						*		*
Drove a car after drinking too much						*		*
Familial History of Alcohol Abuse/Dependency								
Any relatives been alcoholics/problem drinkers at any time					*			
Relationship to 1st/2nd/3rd/4th/5th/6th alcoholic relative					*			
# years lived with 1st/2nd/3rd/4th/5th/6th alcoholic relative					*			

Comparison to Other NLS Surveys: The NLSY97 round 1 survey first established whether the respondent had ever consumed an alcoholic beverage and asked for the respondent's age at first use. In subsequent rounds all respondents were asked whether they had a drink of an alcoholic beverage since the date of last interview and if so what was the quantity and frequency of alcohol use. The 1989 and 1995–2001 interviews of the Mature Women, the 1991–2001 surveys of the Young Women, and the 1990 survey of Older Men also gathered data on the frequency and quantity of alcohol consumption. For more information, refer to the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Abma, Joyce C. "Alcohol Use Among Young Adults in 1988: Results from the National Longitudinal Surveys of Youth." Columbus, OH: CHRR, The Ohio State University, 1991.

Crowley, Joan E. "Demographics of Alcohol Use Among Young Americans: Results from the 1982 National Longitudinal Survey of Labor Market Experience of Youth Panel." Columbus, OH: CHRR, The Ohio State University, 1983.

Crowley, Joan E. "The Demographics of Alcohol Use Among Young Americans: Results from the 1983 National Longitudinal Surveys of Youth." Columbus, OH: CHRR, The Ohio State University, 1985.

Crowley, Joan E. "Status Variations in Alcohol Use Among Young Adults: Results from the National Longitudinal Surveys of Youth." Columbus, OH: CHRR, The Ohio State University, 1985.

Gleason, Philip M.; Veum, Jonathan R.; and Pergamit, Michael R. "Drug and Alcohol Use At Work: A Survey of Young Workers." *Monthly Labor Review* 114,8 (August 1991): 3–7.

Harford, Thomas C. "The Effects of Order of Questions on Reported Alcohol Consumption." *Addiction* 89,4 (April 1994): 421–24.

Harford, Thomas C. and Grant, Bridget F. "Prevalence and Population Validity of DSM-III Alcohol Abuse and Dependence: The 1989 NLSY79." *Journal of Substance Abuse* 6,1 (1994): 37–44.

Harford, Thomas C.; Parker, D.A.; and Grant, B.F. "Family History, Alcohol Use and Dependence Symptoms Among Young Adults in the United States." *Alcoholism: Clinical & Experimental Research* 16,6 (December 1992): 1042–46.

NLSY79 Children

The 1988–2002 surveys included several questions for children ages 10 and older that collected information on whether they had ever consumed alcohol, whether they had consumed alcohol in the past three months, their age at first use, and the number of times in the past year the young adult had gotten drunk. Beginning in 1994, the NLSY79 children 10 and older were divided into two groups: those ages 10 to 14 and those ages 15 and older (the young adults). A more extensive sequence about alcohol use and abuse that more closely resembled the main NLSY79 alcohol use questions was incorporated into the 1994, 1996, 1998, 2000, and 2002 supplements for the young adults. Table 4.2.2 details the evolution of the alcohol use questions asked of the NLSY79 Children.

Survey Instruments: Alcohol use questions can be found within the *Child 10 & Over Self-Administered Supplement* for 1988–2002. Additionally, in 1994, 1996, and 1998, alcohol questions can be found in the *Young Adult Self-Report Booklet* and in the self-report section of the Young Adult CAPI Questionnaire in 2000 and 2002. The Young Adult questionnaire includes questions on consumption of alcohol during pregnancy.

Data Files: Alcohol use variables for NLSY79 Children are found within the "Child Self-Administered Supplement xxxx" and "YA Self" areas of interest for the respective survey years. Information on Young Adults who consumed alcohol during pregnancy is in the "YA Birth Record xxxx" areas of interest.

Reference

Mott, Frank L. and Quinlan, Stephen V. "The Ten-and-Over Years: Self-Reports from Children of the NLSY79." Columbus, OH: CHRR, The Ohio State University, 1993.

Table 4.2.2 Alcohol Variables by Survey Year: NLSY79 Children

Item	Survey Years (Age of children asked)								
Quantity-Frequency	**88**	**90**	**92**	**94 (10-14)**	**94 (15+)**	**96 (10-14)**	**96 (15+)**	**98 (10-14)**	**98 (15+)**
Ever had a drink	*	*	*	*		*			
Had any alcoholic beverages in past three months	*	*	*						
Age when had first drink	*	*	*	*		*	*	*	*
Age when started drinking at least once a month					*		*		*
Most recent time drank				*	*	*	*	*	*
How often drank in past month				*		*	*	*	*
# days drank in past month				*	*		*		*
Average # drinks per day on days drank in past month					*		*	*	*
# days had 5+ drinks per day on days drank in past month					*		*		*
Most drinks in one day in past month					*		*		*
# days had this many drinks (from question above)					*		*		*
How often had drink in past year					*		*		*
How many times gotten very high or drunk in past year					*		*		
Peer/Environmental Influence									
Where had first drink					*				
With whom had first drink					*				
Ever feel pressure from friends to drink				*		*		*	
Where usually drink					*		*		*
With whom usually drink					*		*		*
How many people R's age drink at least sometimes					*		*		*
Abuse-Dependency Symptoms									
Physiological/Behavioral Symptoms									
Gotten into argument or fight					*		*		*
Ended up drinking more than intended					*		*		*
Found it hard to stop drinking once started					*		*		*
Done things that could have hurt R or someone else					*		*		*
Gotten drunk instead of doing things supposed to do					*		*		*
Lifestyle Symptoms (Impact on School, Work, Relationships)									
Missed school/work/other obligation					*		*		*
Had problems with teacher or principal					*		*		*
Had problems with friends/family/neighbors					*		*		*
Had problems with police					*		*		*
Stayed home/gone late to school because drunk or hung over					*		*		*
Had grades in school suffer due to drinking					*		*		*
Driven a car after drinking too much					*		*		*
Stayed home/gone late to work because drunk or hung over					*		*		*
Had chances for raise or better job hurt due to drinking					*		*		*

Table 4.2.2 Alcohol Variables by Survey Year: NLSY79 Children (continued)

Item	Survey Years (Age of children asked)			
Quantity-Frequency	**2000 (10-14)**	**2000 (15+)**	**2002 (10-14)**	**2002 (15+)**
Ever had a drink	*	*	*	*
Had any alcoholic beverages in past three months				
Age when had first drink	*	*	*	*
Age when started drinking at least once a month		*		*
Most recent time drank	*		*	
How often drank in past month	*	*	*	*
# days drank in past month				
Average # drinks per day on days drank in past month	*	*	*	*
# days had 5+ drinks per day on days drank in past month				
Most drinks in one day in past month				
# days had this many drinks (from question above)				
How often had drink in past year		*		*
How many times gotten very high or drunk in past year		*		*
Peer/Environmental Influence				
Where had first drink				
With whom had first drink				
Ever feel pressure from friends to drink	*		*	*
Where usually drink				
With whom usually drink				
How many people R's age drink at least sometimes		*		*
Abuse-Dependency Symptoms				
Physiological/Behavioral Symptoms				
Gotten into argument or fight		*		*
Ended up drinking more than intended				
Found it hard to stop drinking once started				
Done things that could have hurt R or someone else				
Gotten drunk instead of doing things supposed to do				
Lifestyle Symptoms (Impact on School, Work, Relationships)				
Missed school/work/other obligation		*		*
Had problems with teacher or principal				
Had problems with friends/family/neighbors		*		*
Had problems with police		*		*
Stayed home/gone late to school because drunk or hung over		*		*
Had grades in school suffer due to drinking				
Driven a car after drinking too much				
Stayed home/gone late to work because drunk or hung over		*		*
Had chances for raise or better job hurt due to drinking				

4.3 Aptitude, Achievement & Intelligence Scores

NLSY79

This section discusses the types of aptitude, intelligence, and achievement test data available for the NLSY79. The following three surveys, conducted independently of the regular NLSY79 interviews, collected aptitude and intelligence score information: (1) The *Armed Services Vocational Aptitude Battery (ASVAB)*, a special survey administered in 1980 to the 1979 sample of NLSY79 respondents; (2) the 1980 survey of high schools, which used school records to collect scores from various aptitude/intelligence tests and college entrance examinations administered during the youth's high school career; and (3) the 1980–83 collection of high school transcript information, which included the gathering of math and verbal scores from such tests as the *Preliminary Scholastic Aptitude Test (PSAT)*, the *Scholastic Aptitude Test (SAT)*, and the *American College Test (ACT)*. Table 4.3.1 provides an alphabetical listing of the tests and the number of respondents for whom scores are available.

Table 4.3.1 Aptitude & Intelligence Tests: NLSY79 School Survey, Transcript Survey & Profiles Testing

Intelligence Test	Reference Number	Area of interest	Number of Respondents with Scores
American College Test (ACT)	R06201.	Misc. 1981	1,127
	R06202.	Misc. 1981	1,124
	R00173.86=9	School Survey	72
	R00173.92=9	School Survey	17
ASVAB (Profiles)	R06150.–R06159.	Profiles	11,914
	R00173.86=6	School Survey	16
	R00173.92=6	School Survey	3
California Achievement Test	R00173.86=14	School Survey	71
	R00173.92=14	School Survey	17
California SFTAA	R00173.86=1	School Survey	203
	R00173.92=1	School Survey	14
California Test of Mental Maturity	R00173.11	School Survey	599
California Test of Basic Skills	R00173.86=11	School Survey	172
	R00173.92=11	School Survey	27
Cognitive Abilities Test	R00173.86=5	School Survey	59
	R00173.92=5	School Survey	28
Coop School & College Ability Test	R00173.41	School Survey	164
Differential Aptitude Test	R00173.36	School Survey	569
General Aptitude Test Battery	R00173.86=16	School Survey	27
	R00173.92=16	School Survey	1
Henmon-Nelson Test of Mental Maturity	R00173.26	School Survey	201
Iowa Test of Basic Skills	R00173.86=12	School Survey	75
	R00173.92=12	School Survey	7

Table 4.3.1 Aptitude & Intelligence Tests: NLSY79 School Survey, Transcript Survey & Profiles Testing (continued)

Aptitude/Intelligence Test	Reference Number	Area of interest	Number of Respondents with Scores
Iowa Test of Educational Development	R00173.86=13	School Survey	53
	R00173.92=13	School Survey	9
Kuhlman-Anderson Intelligence Test	R00173.31	School Survey	176
Lorge-Thorndike Intelligence Test	R00173.21	School Survey	691
National Educational Development	R00173.86=10	School Survey	22
	R00173.92=10	School Survey	1
Otis-Lennon Mental Ability Test	R00173.16	School Survey	1,191
Preliminary Scholastic Aptitude Battery (PSAT)	R06197.	Misc. 1981	1,386
	R06198.	Misc. 1981	1,386
	R00173.86=3	School Survey	77
	R00173.92=3	School Survey	41
Scholastic Aptitude Test (SAT)	R06199.	Misc. 1981	951
	R06200.	Misc. 1981	948
	R00173.86=2	School Survey	41
	R00173.92=2	School Survey	16
SRA Assessment Survey	R00173.86=20	School Survey	32
	R00173.92=20	School Survey	2
SRA - Primary Mental Abilities	R00173.86=4	School Survey	40
	R00173.92=4	School Survey	2
Stanford Achievement Test	R00173.86=17	School Survey	40
	R00173.92=17	School Survey	2
Stanford-Binet Intelligence Scale	R00173.46	School Survey	101
Sequential Tests of Educational Progress (STEP)	R00173.86=18	School Survey	0
	R00173.92=18	School Survey	0
STS High School Placement Test	R00173.86=15	School Survey	64
	R00173.92=15	School Survey	3
Terman-McNemar Tests	R00173.86=8	School Survey	1
	R00173.92=8	School Survey	0
Tests of Academic Promise	R00173.86=7	School Survey	13
	R00173.92=7	School Survey	1
Wechsler Intelligence Test for Children	R00173.51	School Survey	120

***ASVAB* Administration:** During the summer and fall of 1980, NLSY79 respondents participated in an effort of the U.S. Departments of Defense and Military Services to update the norms of the *Armed Services Vocational Aptitude Battery* (*ASVAB*). The Department of Defense and Congress, after questioning the appropriateness of using the World War II reference population as the primary basis for interpreting the enlistment test scores of contemporary recruits, decided in 1979 to conduct this new study. NLSY79 respondents were selected since they comprised a pre-existing nationally representative sample of young people born during the period 1957 through 1964. This testing, which came to be referred to as the "Profile of American Youth," was conducted by NORC representatives according to standard *ASVAB*

procedural guidelines; respondents were paid $50 for their participation. Groups of five to ten persons were tested at more than 400 test sites, including hotels, community centers, and libraries throughout the United States and abroad. A total of 11,914 civilian and military NLSY79 respondents (or 94 percent of the 1979 sample) completed this test: 5,766 or 94.4 percent of the cross-sectional sample, 4,990 or 94.2 percent of the supplemental sample, and 1,158 or 90.5 percent of the military sample.

The *ASVAB* consists of a battery of 10 tests that measure knowledge and skill in the following areas: (1) general science; (2) arithmetic reasoning; (3) word knowledge; (4) paragraph comprehension; (5) numerical operations; (6) coding speed; (7) auto and shop information; (8) mathematics knowledge; (9) mechanical comprehension; and (10) electronics information. The following variables are available for each youth tested: raw scores, scale scores, standard errors, sampling weight, high school graduation status, and whether the test was completed under normal or altered testing conditions.

A composite score derived from select sections of the battery can be used to construct an approximate and unofficial Armed Forces Qualifications Test score (AFQT) for each youth. The AFQT is a general measure of trainability and a primary criterion of enlistment eligibility for the Armed Forces. Two methods of calculating AFQT scores, developed by the U.S. Department of Defense, have been used by CHRR to create two percentile scores, an AFQT80 and an AFQT89, for each Profiles respondent. To construct AFQT80, the raw scores from the following four sections of the *ASVAB* are summed: Section 2 (arithmetic reasoning), Section 3 (word knowledge), Section 4 (paragraph comprehension), and one half of the score from Section 5 (numerical operations). Beginning in January 1989, the Department of Defense began using a new calculation procedure. Creation of this revised percentile score, called AFQT89, involves (1) computing a verbal composite score by summing word knowledge and paragraph comprehension raw scores; (2) converting subtest raw scores for verbal, math knowledge, and arithmetic reasoning; (3) multiplying the verbal standard score by two; (4) summing the standard scores for verbal, math knowledge, and arithmetic reasoning; and (5) converting the summed standard score to a percentile.

User Notes: The norms for the AFQT are based on persons who are at least 17 years old; those NLSY79 respondents born in 1963 and 1964 were not used in constructing the norms. While scores have been constructed for these younger respondents, users should be aware that because scores are not adjusted in any way to reflect the younger ages, percentile scores for these respondents may not be correct in a psychometric sense. However, relative rankings of ability as measured by the AFQT should be correct among respondents with the same birth year, even for those born in 1963 or 1964.

The 1990 and subsequent releases of NLSY79 data include 13 new "Profiles" variables that reflect Defense Manpower Data Center (DMDC) practices as of February 1992 (see R06180.10–R06183.). Users should note that the full sample of 1979 NLSY79 respondents–not just those interviewed during the 1980 main youth surveys–was eligible for *ASVAB* testing. Bock and Moore (1986) provide an excellent discussion of the *ASVAB* and present tabular results from this special test administration. *ASVAB* scores collected from school records during the high school survey, described below, are available for a limited number of respondents.

High School Survey: During April through October 1980, a separate survey was conducted of non-foreign high schools attended by civilian NLSY79 respondents. This school survey obtained information about the characteristics of each school. It also gathered respondent-specific information that included scores from various intelligence and aptitude tests administered during the respondents' schooling. Data are available for tests such as the *California Test of Mental Maturity*, the *Differential Aptitude Test*, the *Stanford-Binet Intelligence Scale,* the *Wechsler Intelligence Scale for Children,* and a variety of other tests including college entrance examinations such as the *Preliminary Scholastic Aptitude Test (PSAT)*, the *Scholastic Aptitude Test (SAT)*, and the *American College Test (ACT).* The following types of information are available for each test taken: IQ score, national percentile score, date (month/year) the test was administered, and student's grade level at the time of testing. A modest number (1,058 or 9.1 percent) of civilian NLSY79 respondents has one or more such scores available from the high school survey; additional scores may be available from the transcript survey.

Transcript Surveys: High school transcript information was collected during 1980, 1981, and 1983 for those civilian respondents who were expected to complete high school in the United States. While the focus of these surveys was course and grade information, math and verbal scores from the *PSAT*, the *SAT*, and the *ACT* were also collected. One or more (sub)scores for at least one test are available for 2,434 (21.3 percent) of civilian NLSY79 respondents. Additional information, including references to technical reports on these surveys, can be found in the "School & Transcript Surveys" section of this guide.

Knowledge of the World of Work: One assessment, an abbreviated version of the "Knowledge of the World of Work" scale, was directly administered to the young men and women of the NLSY79 in 1979. This set of questions (R00260.–R00268.) asks respondents to pick one of three statements that best describes the duties of each of 10 commonly held jobs. A total score can be calculated by awarding one point for each correct answer (Kohen and Breinich, 1975; Parnes and Kohen, 1975; Parnes, et al., 1970). A similar set of items was administered to the NLS of Young Men in 1966 and the NLS of Young Women in 1969. A similar set of items is also being asked of the children of the NLSY79 mothers at the first survey point they enter the Young Adult survey.

Survey Instruments: Test questions from the *Armed Services Vocational Aptitude Battery* are not available to the public. Copies of the high school and transcript survey instruments can be found within *NLSY High School Transcript Survey: Overview and Documentation*, described in the following paragraph.

Data Files & Documentation: *ASVAB* variables collected during the 1980 Profiles testing are located on the NLSY79 main data set within the "Profiles" area of interest (R06150.–R06183.). The NLSY79 documentation item *Attachment 106: Profile of American Youth* provides general and technical information on the Profiles testing and an annotated bibliography of related publications. An addendum discusses the creation of AFQT80 and AFQT89. Variables collected during the High School Survey are located on the main NLSY79 data set within the "School Survey" area of interest (R00173.11–R00173.97). Test scores from the Transcript Surveys are located on the main NLSY79 data set within the "Misc. 1981" area of interest (R06197.–R06202.). A documentation item, *NLSY High School Transcript Survey: Overview and Documentation*, contains background information on the sample design and field work of these special surveys, a summary of the types of variables collected, and coding information.

User Notes: Users are encouraged to use the scaled and percentile scores since they provide a method of ranking individuals not available when raw scores are used. It should also be noted that the NLSY79 includes some respondents who, although not institutionalized in 1979, may have significantly diminished mental abilities. These individuals may be identified by examining the "Interviewer Remarks" section of the questionnaires (see, for example, R50578. in 1994). Researchers may wish to restrict their universes for certain analyses as these respondents sometimes provide responses that are more error-prone.

Comparison to Other NLS Surveys: The NLSY97 collected three specific achievement tests reported by the respondent—the SAT I, American College Test (ACT), and Advanced Placement (AP) test. Achievement test scores were collected during special transcript or school surveys for the Young Women, and the Young Men. Available scores for respondents in the Young Men's and Young Women's cohorts are primarily from the California Test of Maturity and the Otis/Beta/Gamma; a few respondents have SAT I or ACT scores recorded, and a wide variety of other tests are also included.

From the summer of 1997 through the spring of 1998, most NLSY97 round 1 respondents participated in the administration of the computer-adaptive form of the Armed Services Vocational Aptitude Battery (CAT-ASVAB). NLSY97 respondents were also administered The Peabody Individual Achievement Test (PIAT). See the *NLS Handbook* or the *NLSY97 User's Guide* for more information.

NLSY79 Children

Although not discussed here, extensive information on the cognitive development of children born to female respondents of the NLSY79 is also available. These child data include scores from assessments such as the *Peabody Picture Vocabulary Test (PPVT-R)*, the *McCarthy Scale of Children's Abilities: Verbal Memory Subscale,* the *Wechsler Intelligence Scale for Children: Digit Span Subscale*, and the *Peabody Individual Achievement Test (PIAT): Math, Reading Recognition, and Reading Comprehension*. Users interested in these child data are encouraged to acquire a copy of the *NLSY79 Child Handbook* (Baker et al., 1993) and the *NLSY79 Child & Young Adult Data Users Guide*. Additionally, a Child School Survey was carried out for children who were in grades 1 through 12 in 1994 or 1995. Information was collected on school characteristics and individual student performance including transcripts, grades, program participation, and attendance. The Child School Survey data and documentation are available in a separate file on diskette. For more information on the NLSY79 Child School Survey and the school transcript data collection, see the section in this guide on "School and Transcript Surveys." "The Knowledge of the World of Work" scale given to the NLSY79 respondents was also administered to the Young Adults from 1994 through 1998.

References

Baker, Paula C.; Mott, Frank L.; Keck, Canada K.; and Quinlan, Stephen V. *NLSY79 Child Handbook: A Guide to the 1986–1990 NLSY79 Child Data.* Columbus, OH: CHRR, The Ohio State University, 1993.

Bock, R. Darrell and Mislevy, Robert J. "The Profile of American Youth: Data Quality Analysis of the *Armed Services Vocational Aptitude Battery*." Chicago: NORC, University of Chicago, 1981.

Bock, R. Darrell and Moore, Elsie G.J. *Advantage and Disadvantage: A Profile of American Youth*. Hillsdale, NJ: Lawrence Erlbaum Associates, 1986.

Claudy, John G. and Steel, Lauri. "Armed Services Vocational Battery: Validation for Civilian Occupations Using National Longitudinal Survey of Youth." AFHRL Technical Report 90-29, American Institute for Research, 1990.

Frankel, Martin R. and McWilliams, Harold A. "The Profile of American Youth: Technical Sampling Report." Chicago: NORC, University of Chicago, 1981.

Kohen, Andrew I. and Breinich, Susan C. "Knowledge of the World of Work: A Test of Occupational Information for Young Men." *Journal of Vocational Behavior*. 6: 133–144, 1975.

McWilliams, Harold A. "The Profile of American Youth: Field Report." Chicago: NORC, University of Chicago, 1980.

McWilliams, Harold A. and Frankel, Martin R. "The Profile of American Youth: Non-Technical Sampling Report." Chicago: NORC, University of Chicago, 1982.

National Center for Research in Vocational Education and Center for Human Resource Research. *NLSY High School Transcript Survey: Overview and Documentation.* Columbus, OH: CHRR, The Ohio State University.

Parnes, Herbert S. and Kohen, Andrew I. "Occupational Information and Labor Market Status: The Case of Young Men." *Journal of Human Resources*. 10 (1): 44–55, 1975.

Parnes, Herbert S., Miljus, Robert C. and Spitz, Ruth S. *Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth. Vol. I.* U.S. Department of Labor Manpower Research Monograph No. 16. Washington, DC: U.S. Government Printing Office, 1970.

U.S. Department of Defense. "Profile of American Youth: 1980 Nationwide Administration of the *Armed Services Vocational Aptitude Battery*." Washington, DC: Office of the Assistant Secretary of Defense (Manpower, Reserve Affairs, and Logistics), March 1982.

Wegner, T.G. and Ree, M.J. "The 1980 Youth Population: Correcting the Speeded Tests." TR-85-14, Air Force Human Resources Laboratory, July 1985.

4.4 Assets

This section describes the asset and debt questions asked of NLSY79 respondents since the cohort's inception in 1979. The asset and debt questions asked in the Children of the NLSY79 Young Adult survey are also briefly discussed.

While many researchers use income as the primary measure of economic resources available to a respondent, examining both income and wealth provides a more complete picture of economic well-being for the NLSY79. Wealth, which is equal to a respondent's assets minus their debts, shows another dimension of the resources available to the respondent. The NLSY79 cohort is a unique source of wealth information. Because the original NLSY79 panel contains a supplemental sample of 5,295 blacks, Hispanics, and economically disadvantaged non-black/non-Hispanics, researchers are able to precisely measure wealth for low-income and minority households. For more information, see Zagorsky (1997).

NLSY79

Data Summary: From the first survey year, NLSY79 respondents have been asked about their savings, home, and vehicle ownership. Over the course of the survey, these questions, shown in Table 4.4.1, provide information on when saving begins, how savings habits are formed, and how persistent savings habits are.

Table 4.4.1 NLSY79 Asset Questions 1979 to 1984

Question	79	80	81	82	83	84
Own Home/Apartment	*	*	*	*	*	*
Own Car/Truck	*	*	*	*		
Have Savings	*	*	*	*		

Each of the first four surveys (1979, 1980, 1981, and 1982) contain identical sets of questions asking if the respondent or their spouse had any money set aside for savings, owned a vehicle, or owned their own home. Unfortunately, the respondent was never asked how much savings were held, the value or number of vehicles, or the value of, and mortgage on, their home. Additionally, between 1979 and 1982, NLSY79 respondents were only asked questions on assets if they met one of following five criteria:

(1) 18 years old or greater,
(2) had a child,
(3) enrolled in college,
(4) married, or
(5) living outside their parents' home.

This selection process eliminated many respondents from these questions. Early NLSY79 data show that few individuals answered the questions until they turned 18 years old. For example, in 1979 only five percent of those interviewed under age 18 answered the asset questions. Except for the question on home ownership, asset questions were dropped during 1983 and 1984. Beginning in 1985, when all respondents had turned 18, NLSY79 respondents were administered a much larger wealth section. As Table 4.4.2 shows, respondents were given the opportunity to answer approximately 20 questions about a variety of asset and debt holdings. In most years respondents estimated how much their home, cash savings, stock and bond portfolio, estate, business, and automobile were worth. Additionally, respondents estimated how much mortgage debt, property debt, and other debt they had accumulated. Together these variables provide a rough overview of the net worth of each respondent. As the cohort has aged, the wealth section has grown in length and detail.

The only major change in the wealth series occurred in 1991 and 2002. Budgetary restrictions resulted in the elimination of wealth questions for these rounds.

Table 4.4.2 NLSY79 Asset Questions 1985 to 2000[1]

Question	85	86	87	88	89	90	92	93	94	96	98	00
Own Home/Apartment; Market Value	*	*	*	*	*	*	*	*	*	*	*	*
Amount Owed on Property	*	*	*	*	*	*	*	*	*	*	*	*
Amount Other Home Debt	*	*	*	*	*	*	*	*	*	*	*	*
Have Money Assets; Amount	*	*	*	*	*	*	*	*	*	*	*	*
Did Savings Change; Amount				*								
Have Common Stock, Bonds; Value				*	*	*	*	*	*	*	*	*
Hold Money in IRA/Keogh; Amount									*	*	*	*
Hold Money in 401k/403b; Amount									*	*	*	*
Hold Money in CDs; Amount									*	*	*	*
Rights to Estate/Trust; Value				*	*	*	*	*	*	*	*	*
Own Farm/Bus/Real Estate; Market Value	*	*	*	*	*	*	*	*	*	*	*	*
Amount Debts Farm/Bus/Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Own Vehicles for Own Use; Market Value	*	*	*	*	*	*	*	*	*	*	*	*
Owe Any Money on Vehicles; Amount	*	*	*	*	*	*	*	*	*	*	*	*
Make/Model/Year of Car	*											
Own Items over $500; Value	*	*	*	*	*	*	*	*	*	*	*	*
Owe over $500; Amount owed	*	*	*	*	*	*	*	*	*	*	*	*
Amount R would have left if paid off debts						*	*	*	*	*	*	*

[1]No asset questions were included in the 1991 and 2002 surveys.

Nonresponse: One major concern when asking individuals about their wealth holdings is nonresponse bias. While it is outside the scope of this chapter to fully investigate nonresponse bias of the NLSY79 cohort, this section briefly describes nonresponse in 1992 as an example of the issues raised. There are two primary types of questions on wealth: general questions asking whether the respondent has a particular asset or debt, and specific questions asking about the value of holdings. Factors that are likely to contribute to nonresponse are suspicion, uncertainty about an asset's current value, shared responsibility for family finances, and complex financial arrangements.

Table 4.4.3 provides information on response rates to questions on wealth in the 1992 NLSY79 survey. The NLSY79 has very high response rates on the ownership questions—generally exceeding 99 percent. The responses in the amount column are based only on individuals who stated they owned the particular asset or had the particular debt. This column shows that response rates are relatively low for items where the current values may be uncertain or variable, notably stock holdings and business interests.

For more information on item nonresponse, refer to Chapter 5 in this *User's Guide*.

Table 4.4.3 Response Rates to Questions on Wealth: 1992

	Ownership	Amount
Assets		
Money assets	99.6	95.0
Securities	99.6	85.6
Trusts	99.5	65.9
Primary residence	99.9	97.9
Vehicles	99.9	95.9
Other investments	99.8	88.7
Liabilities		
Mortgage	—	97.7
Vehicle debt	99.0	97.6

Top Coding: Because the NLSY79 is a public use data set that is distributed widely throughout the research and public policy communities, the survey takes extensive measures to protect the confidentiality of respondents. One method of ensuring confidentiality is to "top code" unusually high values.

The NLSY79 has used three top coding algorithms for assets. From 1979 to 1988, every NLSY79 asset question that elicited a response above a specified cutoff value, such as $100,000 for some income variables, was recoded to the truncation value plus one dollar, such as $100,001. Unfortunately this algorithm results in a sharp downward bias in the mean value of NLSY79 asset holdings since the entire

right hand tail is truncated. To address this problem, beginning in 1989, a new algorithm was implemented. The new top code algorithm replaces all values above the cutoff with the average of all outlying values.

Beginning in 1996, the top two percent of respondents with valid values were identified. Values within that top range were averaged and that averaged value replaced all values in the top range.

The extent of top coding for NLSY79 asset questions varies greatly. For example, in 1993 there were only two individuals whose money assets exceeded the cut-off value of $500,000, while 581 individuals gave a market value for their residence above the cut-off value of $150,001. While top-coding presents problems in analysis of individual observations and alters some statistical properties, the new algorithm does not affect the estimates of mean and median holdings. Table 4.4.4 shows the number of people shielded by top codes in both 1985 and 1993.

Table 4.4.4 Number and Percentage of Respondents Whose Assets Were Top Coded in 1985 and 1993

	1985 Percentage	1985 Number	1993 Percentage	1993 Number	Cut-off Value
Market Value of Property	0.3	18	8.5	581	$150,000
Property Mortgage	0.1	7	2.3	159	$150,000
Other Property Debts	0.0	0	0.0	1	$150,000
Money Assets	0.0	3	0.0	2	$500,000
Value Farm/Bus/Other Property	0.2	12	0.5	34	$500,000
Debts Farm/Bus/Other Property	0.0	1	0.1	9	$500,000
Vehicle Debt	0.0	0	0.4	23	$30,000
Vehicle Value	0.0	0	2.3	156	$30,000
Assets Over $500	0.1	10	0.2	10	$150,000
Debts Over $500	0.0	1	0.0	2	$150,000

A second out-of-range issue with NLSY79 data concerns individuals living outside the United States. Residing outside the United States does not preclude a respondent from being interviewed. For example, in 1992, 125 respondents lived abroad. Between 1989 and 1992, for people who hold assets denominated in foreign currency, little effort was made to transform these assets into dollar figures. Instead, such values are classified as "invalid skips" in the data. Beginning in 1993, an effort was made to convert these currencies whenever the unit of the response could be determined. While readers are warned that this occurs, relatively few respondents live outside the United States. Moreover, only a small number of individuals in this group cannot report their wealth in U.S. dollars.

Created Values and Summary Statistics: The CHRR staff has not created any summary wealth values for this cohort as it has for other cohorts. Moreover, due to the low response rates for a number of questions, a CHRR summary variable would contain a number of missing observations. Users seeking to create their own summary statistics should not be surprised to find that a significant fraction of the sample reports no wealth holdings in any given survey. Additionally, users creating their own summary variable will find a significant number of individuals with negative net wealth holdings.

Survey Instruments: Questions pertaining to assets are found in the "Income and Assets" section of the NLSY79 questionnaire beginning with 1985. Specifically, Section 11 (1993), Section 12 (1987, 1989, 1990, 1992), Section 13 (1986, 1994, 1996, 1998, 2000, and 2002), Section 14 (1985), and Section 15 (1988) contain these questions.

Data Files: Data are found primarily within the "Asset" area of interest in the NLSY79 data set.

Comparison to Other NLS Surveys: Information on assets has been regularly collected from each cohort. Users should note, however, that the assets included have varied widely over time and among cohorts. Data on the respondent's debts have been collected from each cohort on a less regular basis. For more details, including specific years, consult the *NLS Handbook* or the appropriate cohort's *User's Guide*.

NLSY79 Children

While there is no information about assets for the NLSY79 children under age 15, asset information is gathered for the Young Adults. The Young Adult survey contains an asset section similar to the NLSY79 asset section fielded in 1985. Young Adults are asked if they own a home, vehicles, and possessions worth more than $500 and if they have outstanding debts. If the young adult responds affirmatively to any of these categories, additional questions probe for the value of and debt outstanding on these items.

References

Englehart, Gary V. "Income and Wealth in the NLSY79." Paper presented at the NLSY79 Redesign Workshop, Bureau of Labor Statistics, Washington D.C., September 1998.

Zagorsky, Jay L. "The NLSY79 Wealth Data Evaluation." Columbus, OH: CHRR, The Ohio State University, 1997.

Zagorsky, Jay L. "Young Baby Boomers' Wealth." *Review of Income and Wealth*, Series 45, Number 2, June 1999, 135–156.

4.5 Attitudes & Expectations

This section examines the data that are available on attitudes and expectations for the NLSY79 cohort and the Children of the NLSY79. Attitude questions within the NLSY79 surveys measure an individual's outlook or demeanor in a given survey year. Expectations questions measure an individual's perceptions of the future. There have been only a small number of both attitude and expectations questions within the NLSY79 to date.

NLSY79

Attitudes: One of the major sets of attitude questions in the NLSY79 relates to respondents' assessments of women working. While a variety of surveys have examined women's roles over time, the NLSY79 is unique because it tracks how an individual's view of women's roles changes, enabling researchers to understand how attitudes toward women's activity in the labor force evolve over the life cycle.

The NLSY79 has asked a series of eight questions about women's roles in three surveys (1979, 1982, and 1987). Respondents were read a statement and asked if they strongly agreed, agreed, disagreed, or strongly disagreed with the statement. Table 4.5.1 illustrates the eight questions and shows the change in weighted responses from 1979 to 1987 for individuals who answered both series of questions. The last column, labeled "Change," shows that from 1979 to 1987 NLSY79 respondents developed more liberal attitudes toward women's roles.

Table 4.5.1 Percent of NLSY79 Respondents Who Either Agree or Strongly Agree with Statement (Weighted Data)

Question	1979	1987	Change (87-79)
Woman's place is in the home, not the office or shop	22.1	10.5	-11.6%
A wife with a family has no time for outside employment	27.7	15.9	-11.8%
A working wife feels more useful than one who doesn't hold a job	66.4	59.2	-7.2%
Employment of wives leads to more juvenile delinquency	26.5	18.7	-7.8%
Employment of both parents is necessary to keep up with the high cost of living	66.0	80.5	14.4%
It is much better if the man is the achiever outside the home and the woman takes care of the home and family	41.8	25.0	-16.8%
Men should share the work around the house with women	81.4	93.7	12.3%
Women are much happier if they stay home and take care of children	29.2	24.2	-5.0%

For researchers who are interested in tracking these issues across generations, the NLS has included similar attitudinal measures in surveys of other cohorts. Mature Women were asked about their attitudes toward working roles in 1972, 1977, 1982, and 1987, while Young Women were surveyed in 1972, 1978, 1983, and 1988. This set of additional questions enables researchers to not only track changes over time within

a cohort but also to understand how attitudes toward work change between cohorts for individuals in a similar age range.

Another set of attitude questions, fielded in 1979, examines how in-school respondents feel about their education. These questions (R00159.–R00168.) ask students to state their attitudes on issues such as how satisfied they are with their school and how safe they feel in school. Overall, the unweighted data show that most students expressed a positive attitude toward their school and schooling.

Lastly, each year the NORC interviewer notes the respondent's attitude during the interview. Respondents are coded as (1) friendly, interested; (2) cooperative, not interested; (3) impatient, restless; or (4) hostile. While the vast majority of respondents are coded as friendly and interested, a small but significant number (37 respondents on average for all rounds of the survey) are labeled as hostile.

Self-Perceptions: In selected survey years, the NLSY79 has collected information from respondents on their perceived self-esteem, their feelings of control over their own lives, their sociability, and their perceptions of influential people in their lives.

Rotter Locus of Control Scale

The Rotter Internal-External Locus of Control Scale (R01530.–R01537.), collected as part of the 1979 NLSY79 survey, is a four-item abbreviated version of a 23-item forced choice questionnaire adapted from the 60-item Rotter Adult I-E scale developed by Rotter (1966). The scale was designed to measure the extent to which individuals believe they have control over their lives through self-motivation or self-determination (internal control) as opposed to the extent that the environment (i.e., chance, fate, luck) controls their lives (external control). The scale is scored in the external direction—the higher the score, the more external the individual. In order to score the Rotter scale in the NLSY79, one has to generate a four-point scale for each of the paired items and then sum the scores. For example, the first pair has the following two statements:

1. What happens to me is my own doing. (internal control item)
2. Sometimes I feel that I don't have enough control over the direction my life is taking. (external control item)

Respondents were asked to select one of each of the paired statements and decide if the selected statement was much closer or slightly closer to their opinion of themselves. The following shows how the scale is constructed:

Internal Control Item		External Control Item	
Much closer	Slightly closer	Slightly closer	Much closer
1	2	3	4

Each of the four paired items is constructed in the same manner as the above example. The values for each item are then summed. The maximum possible score is 16, indicating high external control, while the minimum possible score is four, indicating high internal control. The summed score on the NLSY79 abbreviated version correlates well with self-esteem, education, and social class, but the internal consistency of the scale is quite low for the whole cohort (alpha: .36). Separate estimates by race and sex do not yield significantly higher reliability estimates.

Rosenberg Self-Esteem Scale

The Rosenberg Self-Esteem Scale was administered during the 1980 (R03035.–R03044.) and 1987 (R23491.–R23500.) interviews. This 10-item scale, designed for adolescents and adults, measures the self-evaluation that an individual makes and customarily maintains. It describes a degree of approval or disapproval toward oneself (Rosenberg, 1965). The scale is short, widely used, and has accumulated evidence of validity and reliability. It contains 10 statements of self-approval and disapproval with which respondents are asked to strongly agree, agree, disagree, or strongly disagree. Items A, B, D, F, and G need to be reversed prior to scoring in order for a higher score to designate higher self-esteem. Users should consult the relevant survey year questionnaire for specific wording. Typically, the raw items are summed or the standardized items are averaged to create a summary score. The scale has proven highly internally consistent, with reliability coefficients that range from .87 (Menaghan, 1990) to .94 (Stroccia-Rivera, 1988), depending on the nature of the NLSY79 sample selected.

Influence of Significant Others

The "On Significant Other" section of the 1979 NLSY79 questionnaire is the source of the discrete set of nine variables (R01491.–R01499.) dealing with the attitude of the most influential person in each respondent's life toward certain key career, occupational, residence, and childbearing decisions. These variables are available for respondents who were between the ages of 14 and 17 in 1979.

Sociability

In 1985, two questions were asked of the respondent about the degree to which he or she was shy or outgoing. The first question (R17743.) inquired about the respondent's perception of how shy or outgoing they were at age 6 and the second question (R17744.) asked them to consider how shy or outgoing they are as an adult.

Pearlin Mastery Scale

The *Pearlin Mastery Scale* is a measure of self-concept and references the extent to which individuals perceive themselves in control of forces that significantly impact their lives. It consists of a 7-item scale developed by Pearlin, et al. (1981). Each item (R38942.–R38948.) is a statement regarding the respondent's perception of self, and respondents are asked how strongly they agree or disagree with each

statement. Four response categories are allowed: (1) strongly disagree; (2) disagree; (3) agree; and (4) strongly agree. The scale is constructed by adding together the responses from each item; thus, a range of 4 to 16 is possible. To obtain a positively oriented scale (i.e., a higher score represents the perception of greater mastery over one's environment), negatively phrased questions (R38942., R38943., R38944., R38946., R38948.) should have their response sets reverse coded.

Health Related Attitudes–Aids Knowledge: In 1988, a series of questions was administered to ascertain respondents' familiarity with Acquired Immune Deficiency Syndrome (AIDS). This information allows researchers to examine the impact of such information on subsequent health-related behaviors.

The series begins with a question to determine if the respondent has ever heard of AIDS (R27094.). If the answer is "yes," he or she is then read a set of nine statements (R27095.–R27103.) about AIDS. For each of these statements, the respondent is asked "…to tell if you think it is very likely, somewhat likely, somewhat unlikely, very unlikely, definitely not possible, or if you don't know how likely it is that a person will get AIDS or the AIDS virus infection that way. How likely do you think it is that a person will get AIDS or the AIDS virus infection from…"

a. eating in a restaurant where the cook has AIDS?
b. sharing plates, forks, or glasses with someone who has AIDS?
c. using public toilets?
d. sharing needles for drug use with someone who has AIDS?
e. kissing on the cheek a person who has AIDS?
f. being coughed or sneezed on by someone who has AIDS?
g. attending school with a child who has AIDS?
h. mosquitoes or other insects?
i. having sex with a person who has AIDS?

The series concludes with questions on whether an employer ever provided any information about AIDS to the respondent (R27104.) and, for individuals with school-age children, questions on whether the respondent has ever discussed AIDS with any of his or her children (R27106.) and whether the (oldest) child has had instruction at school about AIDS (R27107.).

Expectations: Although the NLSY79 contains a great deal of information about respondents over time, it has only collected a small amount of information on respondents' perceptions or expectations about the future. These expectations are important to measure since they provide valuable insight into respondents' future plans. Questions were asked in the early years about respondents' expectations for their educational, occupational, and marital futures. Military expectation questions were asked each year from 1979–85. Finally, fertility expectation questions have been asked in most survey years. Expectation questions that have been included are outlined in Table 4.5.2.

Table 4.5.2 NLSY79 Expectations Questions

Year	Topic				
	Education	Occupation	Fertility[1]	Military	Marital
1979	R01718. In school in 5 years? R00235. Highest grade expected	R01700. – R01708. Age 35 occupational plans R01719. – R01721. Work expectations in 5 years	Number of children expected Timing of next child	R00431. Intent to enlist R00407. Length of service expected (Rs in military)	R01716. Married in 5 years? R01717. Age expect to marry
1980		R03289. – R03290. Age 35 occupational plans R02651. Time will stay in current job		R02357. Intent to enlist R02472. Length of service	
1981	R04197. Highest grade expected	R05303. – R05304. Age 35 occupational plans R04471. Time will stay in current job		R04238. Intent to enlist R04353. Length of service	R06562. Married in 1 year? (unmarried Rs)
1982	R06668. Highest grade expected	R08082. – R08090. Age 35 occupational plans R07029. Time will stay in current job	Number of children Timing of next child	R06711. Intent to enlist R06853. Length of service	
1983		R10448., R10449. Age 35 occupational plans	Number of children Timing of next child	R09128. Intent to enlist R09271. Length of service	
1984		R14271., R14272. Age 35 occupational plans	Number of children Timing of next child	R11215. Intent to enlist R12370. Length of service	
1985			Number of children Timing of next child	R16163. Intent to enlist R16322. Length of service	
1986–2002			Number of children Timing of next child		

[1] Reference numbers are not provided because multiple questions were asked of different universes in the same survey year. For example, see R37881. in 1992 for total number of children expected and R00155. in 1979 for expected timing of next child.

Related Information: For measures of job satisfaction, users should consult the topical subsection "Job Satisfaction" in this guide. Additional information related to health can be found in the "Health" section. Items capturing the quality of marital relationships can be found in the "Marital Status, Transitions & Attitudes" section.

Survey Instruments: Interested readers should examine Section 20 in the 1979 questionnaire on "Family Attitudes" and Section 22 on "Aspirations and Expectations" for the majority of attitude and expectations questions collected in that survey year.

The women's role items were also collected in the 1982 questionnaire (Section 15) and the 1987 questionnaire (Section 20). Job aspirations can be found in questionnaire sections 18 (1980), 20 (1981), 17 (1982), 15 (1983), and 16 (1984). The Rosenberg Self-Esteem Scale items can be found in Section 14

of the 1980 questionnaire and Section 15 of the 1987 questionnaire. The health sections of the 1985 (Section 12) and 1992 (Section 11) questionnaires collect the sociability and Pearlin Mastery Scale items, respectively.

Data Files: Most of the variables described in this section can be found in the "Attitude" area of interest. Fertility expectations are located in the "Children," "Birth Record," and "Birth Record xxxx" areas of interest, and military expectations can be found in the "Military" area of interest. Users can find the sociability measure in the "Health" area of interest.

Comparison to Other NLS Surveys: The NLSY97 *Youth Questionnaire* collects information about the respondents' attitudes toward the justice system and toward their parents in each round. The round 1 *Youth Questionnaire* also asked about respondents' attitudes toward school and perceptions of their peers and themselves. For more information, consult the *NLSY97 User's Guide*.

The NLSY97 respondents, the Young Women, and Young Men have all answered questions about their educational and employment expectations for the future; however, the specific questions and reference periods have varied widely. Users should consult the *NLS Handbook* or the appropriate cohort's *User's Guide* for more precise information.

NLSY79 Children

Attitudes: NLSY79 Children have been asked a number of attitude questions over time. These questions can be found in each year's self-report series booklet, completed only by children 10 years of age and older. Questions include whether girls should be treated differently than boys and the child's attitude toward risky behaviors and planning for the future.

An entire section of the NLSY79 Young Adult survey focuses on attitudes. Among the questions are the same set of eight questions asked of NLSY79 main respondents on attitudes toward women working. These questions (Q16-7a to Q16-7h) enable researchers to link mother's responses directly with their children on this issue. The administration pattern of these questions has varied across rounds.

Expectations: NLSY79 Children and Young Adults have been asked in a number of surveys when they expect to marry and when they expect to have children. Young Adults have also been asked if they expect to be working at age 35 and how many children they expect to have. In early rounds, married young adults were asked about the likelihood that they would separate from or divorce their spouse.

For more information concerning child and young adult attitudes and expectations consult the *NLSY79 Child & Young Adult Data Users Guide*.

References

Boor, M. "Dimensions of Internal-External Control and Marital Status, Sex, Age, and College Class." *Journal of Social Psychology*, 94: 145–146, 1974.

Cherlin, A. and Bourque, L.B. "Dimensionality and Reliability of the Rotter I-E Scale." *Sociometry*, 37: 565–582, 1974.

Doherty, William and Baldwin, Cynthia. "Shifts and Stability in Locus of Control During the 1970s: Divergence of the Sexes." *Journal of Personality and Social Psychology*, 48, 4: 1048–1053, 1985.

Ketterlinus, Robert D.; Henderson, Sandra H.; and Lamb, Michael E. "The Effect of Type of Childcare and Maternal Employment and Self-Esteem on Children's Behavioral Adjustment: Findings from the U.S. National Longitudinal Survey of Youth." In B. Pierrehumbert, ed., *L'Accueil du Jeune Enfant: Politiques et Recherches dans les Differents Pays*. Paris: les Editions Sociales, 1992.

Lefcourt, Herbert M. *Locus of Control: Current Trends in Theory and Research*. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1976.

Menaghan, Elizabeth G. "The Impact of Occupational and Economic Pressures on Young Mothers' Self-Esteem: Evidence from the NLSY." Presented: Annual Meetings of the Society for the Sociological Study of Social Problems, Washington, D.C., August 9, 1990.

Pearlin, Leonard I.; Lieberman, Morton A.; Menaghan, Elizabeth G.; and Mullan, Joseph T. "The Stress Process." *Journal of Health and Social Behavior*. 22 (December): 337–353, 1981.

Rosenberg, Morris. *Society and the Adolescent Self-Image*. Princeton: Princeton University Press, 1965.

Rosenberg, Morris. *Conceiving the Self*. NY: Basic Books, Orig. Ed. 1979. Melbourne, Florida: Krieger Publishing Co., Inc., Reprint, 1986.

Rotter, Julian B. "Generalized Expectancies for Internal Versus External Control of Reinforcement." *Psychological Monographs General and Applied*, 80 (1, Whole No. 609), 1966.

Rotter, Julian B. "Some Problems and Misconceptions Related to the Construct of Internal Versus External Control of Reinforcement." *Journal of Consulting and Clinical Psychology*, 43: 56–67, 1975.

Strocchia-Rivera, Lenore. *Self-Esteem and Educational Aspirations as Antecedents of Adolescent Unmarried Motherhood*. Ph.D. Dissertation, The University of Texas at Austin, 1988.

Watson, Jane M. "A Note on the Dimensionality of the Rotter Locus of Control Scale." *Australian Journal of Psychology*, 33, 3: 319–330, 1981.

Wylie, Ruth C. *The Self-Concept Volume 2: Theory and Research on Selected Topics*. Lincoln, Nebraska: University of Nebraska Press, 1979.

Wylie, Ruth C. *The Self-Concept Volume 1: A Review of Methodological Considerations and Measuring Instruments*. Lincoln, Nebraska, University of Nebraska Press, 1974.

4.6 Childcare

NLSY79

Data on childcare have been collected within various topical sections of the NLSY79 questionnaires. The main data collection on types of childcare arrangements, discussed in detail below, occurred during the 1982–86, 1988, 1992, and 1994–2002 surveys. A limited number of childcare questions, fielded within the 1987, 1989, and 1990 fertility series, obtained information from select universes on whether respondents made use of a regular childcare arrangement, on whether respondents encountered childcare problems that affected their employment, or on the extent of responsibility for childcare assumed by female respondents during recent pregnancies. Out-of-the-labor-force respondents could specify within various sections of the yearly questionnaires, e.g., the 1980–98 "CPS or Current Labor Force Status" or 1979-2002, "Periods not Working" sections, that lack of available childcare or family responsibilities was a reason they were not looking for work or did not want a job now.

In addition, information on whether or not childcare services were provided as a supportive service through federally funded government employment and training programs was gathered during the 1979–87 surveys. For those respondents residing in households with children under age 14, the special 1981 "Household Chore and Childcare" time use survey provides information on the amount of responsibility for providing childcare at home and actual time spent on a given day in specific childcare tasks. The "Fringe Benefits" section of this guide details the collection of information on childcare as a fringe benefit made available by employers of NLSY79 respondents. Finally, a special experimental *Childcare Supplement,* administered to 347 NLSY79 mothers who were interviewed during the first month of the 1989 fielding, collected a wide range of information, including data on every childcare arrangement used for at least 10 hours per week since the date of last interview. A report evaluating the quality of various childcare data items is available from CHRR (Mott and Baker 1992).

The discussion that follows reviews data collected during administration of the "Childcare" and "Fertility" sections of the questionnaire. Users should refer to the "Survey Instruments" and "Data Files" sections below for information on other childcare questions.

Types and Locations of Childcare Arrangements: Data on types and locations of childcare arrangements are available for the 1982–86, 1988, 1992, and 1994–2002 survey years. In addition, supplementary information has been collected during certain survey years on the number of hours that childcare services were required/provided, the nature of the payments (cash or noncash), total cost per child/per provider, and the effect of available childcare services on such activities as employment, job search, training, etc.

There are marked differences in the universes of respondents, reference children, kinds of questions asked, and reference periods across survey years (see Table 4.6.1). Universes of respondents vary widely both within and across survey years, from respondents—both male and female—engaged in some educational or labor market pursuit, to all women with a child in the household, to not-employed respondents with an employed spouse. The focus during the initial survey years was on collecting information on childcare arrangements used over the past month for only the youngest child(ren) in the household. In 1986 and 1988, the past-four-weeks childcare data collection was continued but extended to all children in the household. In addition, retrospective data were gathered during these same two interview years and in 1992, and 1994–2002 for up to three childcare arrangements used by NLSY79 mothers during each of the first three years of the child's life.

Typical categories of childcare arrangements include self-care; care by relatives (the child's other parent, a step-parent, siblings, or grandparents); care by nonrelatives; and care provided by institutions such as day care centers, nurseries, or preschools. Information on care provided by individuals usually differentiates between that occurring in the child's home and that occurring in another private home. Information was gathered during select survey years (1983–86 and 1988) on both primary and secondary childcare arrangements.

Survey Instruments: Childcare questions are located in the "Childcare" sections of the questionnaires: Section 16 (1982), Section 14 (1983), Section 11 (1984–87), and Section 10 (1988, 1992, 1994, 1996, 1998, 2000, and 2002). The limited set of childcare questions asked during 1987 and 1989 can be found within the Section 9 "Fertility" series. The "Time Use - Household Chores & Childcare" questions are located in Section 19 of the 1981 questionnaire. Users interested in childcare services provided within government training programs should reference the "Government Training & Jobs Programs" section of this guide.

Data Files: The 1982–2002 childcare questions can be found within the "Childcare" area of interest. The 1980–98 "CPS" series have been placed in the "Misc. xxxx" areas of interest; "Periods Not Working within Job Tenure" includes the variables relating to childcare as a reason for not working for an employer. Variables relating to childcare services provided to respondents holding government jobs or participating in government training programs are located within the "Government Jobs" and "Government Training" areas of interest. The special set of 1981 time use questions relating to childcare can be found in "Time Use." Researchers interested in the 1989 special childcare supplement data should contact NLS User Services.

Comparison to Other NLS Surveys: The NLSY97 *Parent Questionnaire* collected information from one of the youth's biological parents or another household adult on background information including childcare.

In some years the Young Women and Mature Women answered questions concerning types and locations of childcare arrangements and the extent of childcare responsibility. For more details, including specific years, consult the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Averett, Susan L.; Peters, H. Elizabeth; and Waldman, Donald M. "Tax Credits, Labor Supply and Child Care." Report #92-9. Chicago: Population Research Center, NORC, University of Chicago, 1992.

Blau, David and Robins, Philip. "Turnover in Child Care Arrangements." *Review of Economics and Statistics* 73,1 (February 1991): 152–57.

Cattan, Peter. "Child-Care Problems: An Obstacle to Work." *Monthly Labor Review* 114,10 (October 1991): 3–9.

Mott, Frank L. and Baker, Paula. "Evaluation of the 1989 Child Care Supplement in the National Longitudinal Surveys of Youth." Discussion Paper 92-6. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 1992.

Presser, Harriet. "Shift Work and Child Care among Dual-Earner American Parents." *Journal of Marriage and the Family* 50 (February 1988): 133–48.

Veum, Jonathan R. "Interrelation of Child Support, Visitation, and Hours of Work." *Monthly Labor Review* 115,6 (June 1992): 40–47.

Veum, Jonathan R. and Gleason, Philip M. "Child Care: Arrangements and Costs." *Monthly Labor Review* 114,10 (October 1991): 10–17.

Waite, Linda and Leibowitz, Arleen. "What Parents Pay For: Child Care Characteristics, Quality, and Costs." *Journal of Social Issues* 47,2 (Summer 1991): 33–48.

Table 4.6.1 Childcare Questions: 1982–2002 NLSY79 Surveys Including the Special 1989 Childcare Supplement

Year	Universe	Nature of Questions	Time Reference	Reference Children
1982	(1) All respondents in school, in training, employed, or on active duty with children in the household	(1) Type and location of care; total weekly expenditures; days/hours in childcare	(1) Usually	(1) Youngest and next youngest child
	(2) Unemployed respondents (in school or training) with children in the household	(2) Hypothetical type and location of childcare if employed	(2) Future	(2) Youngest and next youngest child
	(3) Same as (1)	(3) Would availability of childcare affect hours spent/ attendance at schooling, training, employment or job search	(3) Future	(3) —
1983	(1) All respondents in school, in training, employed or on active duty with children in the household	(1) Types and location of primary and secondary care; hours; nature of payments	(1) Last 4 weeks	(1) Youngest child
	(2) Women in school, training, employed or on active duty with children in the household	(2) Would availability of childcare affect hours spent/ attendance at schooling, training, employment or job search	(2) Future	(2) —

Table 4.6.1 NLSY79 Childcare Questions (continued)

Year	Universe	Nature of Questions	Time Reference	Reference Children
1984	(1) All respondents in school, in training, employed or on active duty with children in the household	(1) Type, location, and hours of primary & secondary care; nature of payments; use of grandmother	(1) Last 4 weeks	(1) Youngest child in household
	(2) Not employed respondents with employed spouse	(2) Type and location of primary care	(2) Last 4 weeks	(2) Youngest child in household
	(3) Women with a child in the household	(3) Would availability of childcare affect hours spent/attendance at school, training, employment or job search	(3) Future	(3) —
1985	(1) All respondents in school, in training, employed, or on active duty with children in the household	(1) Type, location, and hours of primary & secondary care; nature of payments; total expenditures; retrospective on current arrangement; detail on primary group care	(1) Last 4 weeks	(1) Child in household who was youngest active in household in 1984
	(2) Respondents employed or in active forces with children in the household	(2) Hypothetical additional cost of primary care arrangement for respondents wanting to work more hours	(2) Future	(2) Youngest and next youngest child
	(3) Same as (1)	(3) Same as (1)	(3) Last 4 weeks	(3) Youngest child in household - no care data collected in 1984
1985	(4) Same as (1)	(4) Type and location of primary & secondary care	(4) Last 4 weeks	(4) Youngest child in household
	(5) Respondents not in school, in training, or unemployed with employed spouse	(5) Type and location of primary care and shift worked by spouse	(5) Last 4 weeks	(5) Youngest child in household
1986	(1) All women with children in the household	(1) Type, location and hours of primary & secondary care; detail on primary group care; nature of payment; expenditures for all care	(1) Last 4 weeks	(1) All children in the household
	(2) All mothers	(2) Type and location of up to 5 arrangements at each age	(2) First 3 years of life	(2) All biological children at least one year old who resided with mother during most of 1st, 2nd, and/or 3rd years of life
1987	(1) All respondents with children in the household	(1) Use of a regular childcare arrangement	(1) Last 4 weeks	(1) Any (not individually) children in the household
1988	(1) All women with a biological child in the household	(1) Location, type, and hours of primary & secondary care; detail on primary group care; nature of payment; expenditures for all care	(1) Last 4 weeks	(1) Any (not individually) children in the household
	(2) All mothers	(2) Location and type of up to 3 arrangements at each age and extent of usage	(2) First 3 years of life	(2) All biological children at least one year old who resided with mother during most of 1st, 2nd, and/or 3rd years of life
	(3) Female respondents	(3) Extent of responsibility for childcare during recent pregnancies	(3) During pregnancy	(3) Any existing already during the pregnancy

Table 4.6.1 NLSY79 Childcare Questions (continued)

Year	Universe	Nature of Questions	Time Reference	Reference Children
1989	(1) Respondents who were employed or on active duty in past four weeks with children under age 14 in the household	(1) Problems with regular childcare arrangements that affected respondent's work	(1) Last 4 weeks	(1) All children under age 14 in household
1989 Supple-ment	(1) Women with at least one child under age 14 in the household	(1) Types and location of all childcare arrangements lasting at least one hour; hours; characteristics of care giver; month/year began; reason needed childcare	(1) Last week	(1) Any child
	(2) Women with more than one child under age 14 in the household	(2) Care giver used; hours; costs	(2) Last week	(2) Youngest and next youngest child
	(3) Same as (1) unemployed only	(3) Main reason not working; if childcare available, would work; caretaker usually use when go out	(3) —	(3) —
	(4) Same as (1) employed only	(4) Impact of sick child on work hours; type of childcare for sick child; impact of problems with regular childcare on job, training, school; types of childcare problems; proximity of relatives	(4) Last month/last 12 months	(4) —
	(5) Same as (1) except with children aged 5 and older	(5) Usual childcare arrangements for children after school	(5) Regular school year	(5) Youngest and next youngest child
	(6) Same as (1)	(6) Characteristics of up to 5 types of childcare arrangements used for at least 10 hours in any week; dates and reason started/stopped; costs	(6) Date of last interview	(6) —
1990	(1) Female respondents	(1) Extent of responsibility for childcare during recent pregnancies	(1) During pregnancy	(1) Any existing already during the pregnancy
1992, 1994-2002	(1) All mothers	(1) Location and type of up to 3 arrangements at each age and extent of usage	(1) First 3 years of life	(1) All biological children at least 1 year old who lived with mother during most of first three years of life

NLSY79 Children

Retrospective childcare history in the first three years has been reconstructed with the child as the unit of observation and placed on the NLSY79 Child Data File. Users should refer to Table 4.6.1 above for important variations, both across and within survey years, in the universes and the kinds of questions asked. Additionally, in 1994–1998, the young adults aged 15 and older, were asked about their usual current childcare arrangements for all biological and step/adopted or partner's children. In 2000 and 2002, the childcare section focused on the youngest child in the household and included questions on parenting, attitudes, and behaviors.

Survey Instruments: Childcare questions are located in the "Childcare" sections of *NLSY79 Young Adult Questionnaire*s. See also the NLSY79 discussion above.

Data Files & Documentation: Descriptions of those childcare variables present on the child data set can be found in the "Childcare and Childcare Related" section of the *NLSY79 Child Handbook*. These items, converted to child-based variables, are located in the "Childcare" area of interest on the data file. The young adult variables are located in the "YA Childcare" area of interest.

References

Baydar, Nazli and Brooks-Gunn, Jeanne. "Effects of Maternal Employment and Child-Care Arrangements on Preschoolers' Cognitive and Behavioral Outcomes: Evidence from the Children of the National Longitudinal Survey of Youth." *Developmental Psychology* 27,6 (November 1991): 932–45.

Belsky, Jay and Eggebeen, David J. "An Exchange on Maternal Employment and Young Children's Adjustment: Scientific Criticism and the Study of Early and Extensive Maternal Employment." *Journal of Marriage and the Family* 53,4 (November 1991): 1107–10.

Leibowitz, Arleen and Klerman, Jacob. "Child Care and Women's Return to Work After Childbirth." *American Economic Review* 80,2 (May 1990): 284–88.

Mott, Frank L. "Developmental Effects of Infant Care: The Mediating Role of Gender and Health." *Journal of Social Issues* 47,2 (1990): 139–58.

Studer, Marlena M. "Effects of Parental Resources and Child Care Arrangements on Preschoolers' Cognitive Skills." Ph.D. Dissertation, University of Michigan, 1989.

Studer, Marlena M. "Nonparental Child Care Environments: Differences in Preschool Cognitive Skills by Type of Care." In *Sociological Studies of Child Development, Volume 5*, P. Adler and P. Adler, eds. Greenwich, CT: JAI Press, 1992.

Vandell, Deborah L. and Ramanan, Janaki. "Children of the National Longitudinal Survey of Youth: Choices in After-School Care and Child Development." *Developmental Psychology* 27,4 (1991): 637–43.

4.7 Cigarette Use

NLSY79

Three sets of cigarette use data for NLSY79 respondents are available. (1) Data were collected, during the 1984 survey, on age at first use, most recent use, and number of cigarettes smoked in the past 30 days. (2) The 1992, 1994, and 1998 surveys gathered information from those respondents who had smoked at least 100 cigarettes in their life on the age that they started smoking daily or the number of months/years since they had last smoked daily. (3) The 1983–86, 1988, 1990, 1992, and 1994–2000 surveys gathered, for female NLSY79 respondents, information on whether they smoked in the twelve months before pregnancy and on the number of cigarettes smoked during pregnancy (2002).

Survey Instruments: Questions on cigarette use can be found in Section 14 of the 1984 questionnaire, in the 1992, 1994, and 1998 *Self-Administered Drug Use Supplement*, and in the "Fertility" section of the 1983–86, 1988, 1990, 1992, and 1994–2002 questionnaires.

Data Files: Variables from the 1984, 1992, 1994, and 1998 surveys can be found in the "Drugs" area of interest; the yearly "Birth Record xxxx" area of interest contains the cigarette use during pregnancy variables.

Comparison to Other NLS Surveys: In the NLSY97 round 1, all respondents were first asked whether they had ever smoked an entire cigarette; if so, they reported their age on the first occasion. In subsequent rounds, respondents were asked whether they had smoked a cigarette since the date of last interview, and if they had, frequency of use and the quantity of cigarettes smoked. Detailed information on cigarette use was gathered from the Mature Women in 1989 and from the Young Women in 1991 and 1993; these respondents also indicated whether they currently smoked in 1995–2001 surveys. Older Men provided retrospective smoking data in 1990. Consult the *NLS Handbook* or the appropriate cohort's *User's Guide* for further details.

NLSY79 Children

Data were collected during the 1988–2002 surveys for children 10 years of age and older on age at first use and extent of use of cigarettes. A more extensive set of questions was addressed to the Young Adults in 1994, 1996, 1998, 2000, and 2002. For more information on these data, see the "Crime, Delinquency, & Arrest Records" section of this guide.

4.8 Class of Worker

NLSY79

Class of worker data have been collected during each interview. These variables indicate whether a respondent (1) works for a private company or individual for wages, salary, or commission; (2) is a government employee; (3) is self-employed in his/her own business, professional practice, or farm; or (4) is working without pay in a family business or farm. This information is available for an employed respondent's current/most recent job, as well as for each job held since the last interview in which s/he worked for more than 10/20 hours a week and for more than nine weeks since the last interview. (Prior to 1988, information was collected for jobs worked more than 20 hours a week. After 1988, the number of hours was reduced to 10.) Respondents indicating that they are government employees are asked a follow-up question on whether they work at the federal, state, or local level; self-employed respondents are asked whether their business is incorporated or unincorporated. These questions are similar to those asked in the *Current Population Surveys.*

User Notes: The coding system used for class of worker was changed beginning with the 1994 survey. Census definitions of these classes are provided in Figure 4.8.1 at the end of this section.

1979–93	1994 and beyond
1: private company	1: government
2: government	2: private for profit company
3: self-employed	3: non-profit organization
4: without pay	4: self-employed
	5: working in family business

Survey Instruments: Questions relating to current/most recent job and corporation status for businesses can be found in the "Current Labor Force Status or CPS" section of each year's questionnaire: Section 8 (1979), Section 7 (1980), Section 6 (1981 and 1993), and Section 5 (1982–92 and 1994–98). Information on characteristics of up to five jobs held by the respondent between survey dates is drawn, for the 1979 survey year only, from the main questionnaire (Section 10 "Jobs") and from the *Employer Supplements* for the 1980–2002 surveys. Since 1993, the *Employer Supplement* has been physically a part of the questionnaires.

Data Files: Until 1994, class of worker and type of government worker variables for current/most recent job are located in the "CPS" area of interest on the main NLSY79 data set. Comparable variables for additional jobs held between interview dates are found in the "Job Information" area of interest. Beginning in 1994, the CPS job variables are found in "Job Information" as well. They were all moved to the *Employer Supplement*. Class of worker information for all CPS jobs and up to four additional long-

term jobs held since the last interview is also available on the NLSY79 Work History Data File. Corporation status of self-employed respondents' businesses has been placed in the various yearly "Misc. xxxx" areas of interest.

> ***User Notes:*** The "CPS job" is the respondent's current or most recent job at the interview date. If more than one job is held at that time, the CPS job/employer is the one at which the respondent works at the most hours. If the respondent is not working, the CPS job is the job most recently held since the date of the last interview. In the *Current Population Surveys*, the CPS job is simply the current employer for whom the respondent works the most hours.
>
> Only information on the first five employers encountered between interviews is released in the NLSY79 public files. However, data collected from any additional jobs are used in creating *KEY* variables on hours and weeks worked. In any survey year, the number of respondents who report more than five jobs is less than one percent of those interviewed.

Comparison to Other NLS Surveys: The NLSY97 asks respondents age 16 and older to report the industry for each employer as of the job's start date. Categories for type of industry include; Government, Private for profit company, Non-profit organization (including tax exempt and charitable),Working without pay in a family business or farm, and Member of the Armed Forces. Business or industry is coded according to the 1990 three-digit Census industrial classification system. During each survey year Young and Mature Women and Young and Older Men of the Original Cohorts provided data on their class of worker status.

NLSY79 Children

The *Young Adult Questionnaire*, for children 15 and older, has contained the same class of worker questions as the main NLSY79 in each survey year. Class of worker variables for each child's mother's CPS job are also provided, with the child as the unit of observation, on the NLSY79 Child Data File. Government worker and corporation status variables for NLSY79 mothers can be found on the main NLSY79 data set.

Survey Instruments: Questions pertaining to the current/most recent job and corporation status of a business can be found within the *Employer Supplements* sections of the *NLSY79 Young Adult Questionnaires*. See also the NLSY79 discussion above.

Data Files & Documentation: Descriptions of these variables can be found within the "Family General Employment History" section of the *NLSY79 Child Handbook* and are located within the "Employment

Income" area of interest on the data file. The young adult variables are located in the "YA Job Information" area of interest.

Figure 4.8.1 Definitions of CPS Class of Worker Entries

Private Employees are those who work for wages, salary, commission, tips, piece-rates, or pay in kind. This applies regardless of the occupation at which the employee worked, whether general manager, file clerk, or porter. The definition includes persons working for pay for settlement houses, churches, unions, and other private nonprofit organizations until 1994 when these were independently coded.

Federal Government Employees are those who work for any branch of the Federal Government. This includes persons who were elected to paid Federal offices, civilian employees of the Armed Forces, and some members of the National Guard. It also includes employees of international organizations (e.g., United Nations) and employees of foreign governments, such as persons employed by the French Embassy or the British Joint Services Mission.

State Government Employees are those who work for State governments including paid State officials (e.g., statewide JTPA administrators), State police, and employees of State universities and colleges.

Local Government Employees are those who work for cities, towns, counties, and other local areas. Included are those working for city-owned bus lines, electric power companies, water and sewer service, local JTPA offices, etc. This group also includes employees of public elementary and secondary schools.

Self-Employed Worker refers to a person working for profit or fees in their own business, shop, office, or farm.

Without Pay refers to a person working without pay on a farm or in a business operated by a related member of the household. Room and board and a cash allowance are not counted as pay for these family workers.

Never Worked refers to a person looking for work who never before held a full-time job lasting two or more consecutive weeks.

Source: *Interviewer's Manual: Current Population Survey.* Washington, DC: Department of Commerce, Census Bureau, July 1985.

4.9 Clustering Adjustments

NLSY79

Researchers use NLSY79 data to estimate a variety of statistics. Since NLSY79 data come from a sample instead of data from every age appropriate individual in the U.S. the statistics produced are only estimates of the "true" national values. When researchers compute a statistic, such as a mean or a regression coefficient, the computer package automatically provides a second set of information, such as the standard error, standard deviation or t-statistic, which tells researchers how precisely the mean or coefficient is measured.

Details: To save time and money instead of randomly selecting individuals located anywhere in the USA during 1978, only a random selection of areas were selected. By randomly selecting a fixed number of small areas, interviewers reduced the amount of time they spent traveling from house-to-house for each face-to-face interview. This procedure lowered survey costs, increased the speed at which the survey was fielded and produced data for researchers faster. Unfortunately, by using this approach NLSY79 data, like all other national data sets that use clustering, has many groups or bunches of respondents who share similar characteristics because they all lived in the same neighborhood during 1978. This clustering in the data makes survey results appear more homogeneous, or similar, than actually found in the US.

Researchers can use two different approaches to correct this problem. The first approach uses the tables found in the NLSY79 "Technical Sampling Report" and Appendix B of this guide. For each survey round there is a table that lists the "Design Effects" or DEFT factors. These DEFTs give users a simple method for determining approximately how much they should increase their standard errors when trying to measure the precision of their estimates. Using the DEFT factors is a simple and very quick method of adjusting standard errors to account for clustering. However, these tables provide no guidance on how to adjust regression coefficients, provide no guidance when users are using specialized subsamples, and are based on calculations from only a small subset of NLSY79 variables.

The more general method is to correct for clustering by using a specialized software package. Two of the most widely used packages to adjust surveys for clustering effects are Stata, sold by the Stata Corporation (http://www.stata.com) and Sudaan, sold by RTI International (http://www.rti.org/sudaan). This section describes how to adjust for clustering using Sudaan since Sudaan is used to generate the DEFT factors found in the "Technical Sampling Report" and Appendix B.

Two of the most common uses of NLSY79 data are to create summary statistics and to run regressions. Table 4.9.1 shows how adjusting for clustering affects summary statistics. The table uses data from the 1998 survey. The second column labeled "mean value" shows that in 1998 the 7,624 NLSY79

respondents who participated had an average net worth (assets minus liabilities) of $128,068, a total family income of $55,031 and a body mass index (BMI is a measure that combines height and weight into a single measure that is commonly used to check individuals for obesity) of 26.7. The value 26.7 is in the middle of the overweight range. The third and fourth columns show first the uncorrected standard errors from SAS, and then Sudaan's standard errors corrected for clustering. Correcting for clustering increases net worth's standard error from $3,403 to $5,826, a jump of 1.7 times; increases income's error from $536 to $1,137, a jump of 2.12 times; and increases BMI's error from 0.06 to 0.09, a jump of 1.5 times.

Table 4.9.1: Effect of Clustering Correction on a Mean Value's Standard Error, 1998 Data, Example One

Variable	Mean Value	Uncorrected Std Error	Corrected Std Error
Net Worth	$128,068	$3,403	$5,826
Family Income	$55,031	$536	$1,137
BMI	26.7	0.06	0.09

Table 4.9.2 shows how adjusting for clustering effects a simple regression. Using the same 1998 data, a simple unweighted least squares equation was run with both SAS and Sudaan using Net Worth as the dependant variable and six independent variables with both SAS and Sudaan. Three of these independent variables BMI, income and age take a relatively wide range of values, while the remaining three variables (black, Hispanic, and female) take the value of 1 if the respondent has the particular characteristic and 0 otherwise.

The table shows that adjusting for clustering changes many of the standard errors and associated t-values. The biggest effect is seen on the income line. The uncorrected standard error increases from 0.06 to 0.19, resulting in the t-value falling from 44.37 to 13.87. Smaller changes are seen for the other variables. The intercept, age and female standard errors all increase in size while the BMI, black, and Hispanic variables all end up with slightly smaller standard errors.

Overall, both examples show that adjusting for clustering effects is important. The next subsection shows what variables are needed to adjust for clustering. The section ends by showing the specific Sudaan commands used to create the tables above.

Key Variables Needed For Clustering Correction: There are two variables needed to adjust the data set for clustering. Both variables are found on the geocode data set, which can only be accessed by individuals who have special clearance from BLS. These two variables are part of the geocode data set because

researchers who have these variables know where each non-military respondent lived in 1978. If you do not have access to the geocode data set, you cannot use Sudaan or Stata to adjust for clustering.

Table 4.9.2: Effect of Clustering Correction on a Mean Value's Standard Error, 1998 Data, Example Two

Variable	Coefficient Estimate	Uncorrected Std Error	Uncorrected t Value	Corrected Std Error	Corrected t Value
Intercept	186,808	43,534	4.29	52,166	3.58
BMI	1091	466	2.34	457	2.39
Income	2.63	0.06	44.37	0.19	13.87
Black	40,394	5,938	6.80	4,259	9.48
Hispanic	41,382	6,617	6.25	4,554	9.09
Age	5,285	1086	4.87	1,252	4.22
Female	2,814	4,891	0.58	5,064	0.56

As discussed above, the NLSY79 is a multi-stage clustered sample. The clusters were created by first dividing the entire U.S. into Primary Sampling Units, or PSUs. These PSUs were defined by NORC and were composed of Standard Metropolitan Statistical Areas (SMSAs), entire counties when the counties were small, parts of counties when the counties were large, and independent cities. NORC randomly selected two different sets of PSUs for inclusion in the study, each of which by itself randomly represents the U.S. Using more formal language, this selection of two sets of PSUs means the NLSY79 study is comprised of two replicates or strata. Within each is a random selection of PSUs. The replicate or strata that a respondent belongs to is found in the geocode data set only and is labeled variable R02191.46, which has the title "Within Stratum Replicate Of Primary Sampling Unit." This variable takes either the value 1 or 2, for either the first or second replicate.

The variable, which contains the PSU is labeled R02191.45, which has the title "Stratum Number For Primary Sampling Units." R02191.45 ranges in value from 1 to 120. Researchers who want to know which geographic areas correspond to particular values should look at Attachment 104 of the Geocode Supplement for the crosswalk table. Respondents with a PSU code of 52 to 70 are part of the military sample and do not have any known geographic location.

User Notes: The label for variable R02191.46 found in SAS and SPSS programs that are automatically produced by NLS Investigator is confusing. The label reads "PRIMARY SAMPLNG UNIT PSU SCRAMBLED 79". This variable actually contains the scrambled replicate, or stratum number, not the actual PSU. PSU information is found in R02191.45.

User Notes: Users should be very careful when adjusting geographic variables using the clustering corrections. The complete title on variable R02191.46 is "Within Stratum Replicate Of Primary Sampling Unit (PSU) – *Scrambled*." Because this variable is randomly scrambled, doing clustering corrections on some geographic variables produces completely wrong results. Scrambling has no effect on non-geographic variables such as education, income or training.

Using the Key Variables In Sudaan: To help researchers adjust for clustering using Sudaan the specific steps used to generate the tables above are covered in this section. This section is not designed to replace the Sudaan two volume User's Manual. Rather, this section is designed to give researchers a flavor of how to adjust the data for clustering effects. While the tables were produced using the Windows Version 8.0 Standalone package, the steps and commands are similar for other versions of Sudaan.

To adjust summary statistics such as means or to create adjusted regressions with Sudaan, the researcher needs to create three files; one file containing the data, one file telling Sudaan how to read the data, and one file containing the specific commands. To create the data file, any computer package can be used. For the simplest cases data can even be written directly from NLS Investigator to a file. Figure 4.9.1 has the relevant portion of the SAS program used to create the data file used in Tables 4.9.1 and 4.9.2.

Figure 4.9.1: SAS Commands To Create Sudaan Data File

```
Data obesity;
    (SAS commands that generate variables like Age, Income and BMI are placed here)
PSU             = R0219145;
REPLICATE    = R0219146;
proc sort;              /* Sort the data since Sudaan can not handle unsorted */
by replicate psu;
Data;
Set obesity;
file 'C:\DesignEffects\ObesitySudaanAdjustment.dbs';
put  ID                 5.
 PSU                    3.
 REPLICATE              2.
 WGHT                   7.
 BLACK                  2.
 HISPANIC               2.
 AGE                    3.
 SEX                    2.
 INCOME                 9.
 BMI                    4.1
 NETASSET               9.
Run;
```

One of the key things to note is that the data are sorted by the PSU and replicate variables before being written to the file. For most operations Sudaan requires the data to be in this order before processing.

The second file is the "label" file. This file is used to read the data into Sudaan. The label file, called "ObesitySudaanAdjustment.lab" is shown in Figure 4.9.2. The label file has five major parts. The left side is the variable's name, followed by a letter which tells Sudaan if the variable contains numeric or character data. The third and fourth columns contain the number of bytes (characters) taken up by the variable and the number of decimal places in the number. The last column contains the label. Sudaan expects the label file to follow a precise format with columns starting and ending in very specific places. Small mistakes in the label file will produce incorrect clustering adjustments, so take your time when creating this file.

Figure 4.9.2: Sudaan Label File

```
ID          N  5  0    ID# (1-12686)
PSU         N  3  0    # OF PSU
REPLICAT    N  2  0    REPPLICATE CRAMBLED
WGHT        N  7  0    SAMPLNG WEIGHT
BLACK       N  2  0    T/F Black
HISPANIC    N  2  0    T/F HISPANIC
AGE         N  3  0    AGE OF RESPONDENT
SEX         N  2  0    MALE 0 - FEMALE 1
TOTINC      N  9  0    TOTAL INCOME
BMI         N  4  1    BODY MASS
NETASS      N  9  0    TOTAL NET WORTH
```

The third and final file is the actual set of commands used to run Sudaan. As mentioned above, many versions of Sudaan allow commands to be typed directly into the program by hand so researchers are not forced to create command files. Figures 4.9.3 and 4.9.4 provide the Sudaan commands that were used to create Tables 4.9.1 and 4.9.2. Figure 4.9.3 has three sections. The top section below the "Proc Descript" command tells Sudaan where to find the raw data, and what variable contains the basic survey weights. The nest command defines which variables contain the replicate and PSU information. The middle section, beginning with "Var," tells Sudaan which variables will have descriptive statistics created. The final section, beginning with "Print," specifies the types of output that are shown.

The first section of Figure 4.9.4 is very similar to commands seen above in Proc Descript. The large difference is that the "weight" command has the reserved name "_ONE_" after it instead of the NLSY79 survey weight, "wght." Putting the "wght" variable after the weight command would cause Sudaan to run weighted least squares. By using "_ONE_" instead, Sudaan weights all variables with the same 1.0 value, resulting in Sudaan running unweighted least squares. The second part of the command, which begins with "Model," shows the exact regression to run.

Figure 4.9.3: Sudaan Commands Used To Create Summary Statistics In Table 4.9.1

```
Proc Descript
Data="C:\DesignEffects\ObesitySudaanAdjustment.dbs"
   filetype=ascii        design=wr mean DEFT1           est_no=12686;
   weight wght;
   nest REPLICAT PSU / MISSUNIT;
Var  NETASS BMI TOTINC BLACK HISPANIC AGE SEX;
Print nsum="Sample Size" WSUM="Population Size" Mean
            semean="Std. Err." DEFFMEAN="Design Effect" / style=nchs
              nsumfmt=f6.0 wsumfmt=f10.0 deffmeanfmt=f6.2 semeanfmt=f11.2;
```

Figure 4.9.4: Sudaan Commands Used To Create Regression Values In Table 4.9.2

```
Proc Regress
Data="C:\DesignEffects\ObesitySuddanAdjustment.dbs"
            filetype=ascii          design=wr DEFT1     est_no=12686;
            weight _ONE_;
            nest REPLICAT PSU / MISSUNIT;
Model NETASS = BMI TOTINC BLACK HISPANIC AGE SEX;
```

Related Variables: The 1979 geocode data also contain the state, county, and SMSA where the respondent lived in 1979.

Survey Instruments: None.

Documentation: Additional information can be found in Appendix B of this *User's Guide*, In the NLSY79 Technical Sampling Report, and in Attachment 104 of the Geocode Supplement.

Data Files: Data on clustering can be found only in the NLSY79 geocode files under the "GEOCODE" 1979 area of interest.

NLSY79 Children

Beyond what is available for the NLSY79 mothers, there are no data that enable users to make special clustering adjustments for the NLSY79 Children.

4.10 Crime, Delinquency & Arrest Records

NLSY79

The 1980 NLSY79 survey included a special self-report detailing respondents' participation in and income from delinquent or criminal activities such as skipping school, alcohol/marijuana use, vandalism, shoplifting, drug dealing, robbery, assault, or gambling during the previous twelve month period. Adapted from previously used self-report delinquency scales, this instrument was modified for the NLS to accommodate the confidentiality issues raised by in-home administration. In addition, it used an expanded response scale to differentiate very highly delinquent youth from occasional participants. A second set of questions measured involvement with the criminal justice system by assessing the extent of police contacts, resulting criminal convictions, and sentences (probation, incarceration) received.

Related variables collected during this and other survey years include (1) questions on school discipline problems, e.g., whether each NLSY79 respondent had ever been suspended or expelled from school and when/if the youth had returned to school (see the "School Discipline" section of this guide); (2) the childhood residence section of the 1988 survey, which collected information on whether NLSY79 respondents had resided in a detention center/jail/prison during any of their first eighteen years of life (see the "Family Background" area of interest); and (3) a yearly created 'Type of Residence' variable that identifies those NLSY79 respondents who resided in jail at each interview date. Responses of "in jail" to questions within post-1988 *Employer Supplements* and the "Gaps Not Working" sections of the main questionnaires for the reason not looking for work when not employed can also be used to identify incarcerated respondents. (see the "Between Job Gaps" and "Misc. xxxx" areas of interest).

Survey Instruments: Section 15 (of the 1980 questionnaire) on "Delinquency and Drugs," Section 16 on "Reported Police Contacts," and the accompanying confidential *Form J* contain the delinquency and police contact questions.

Data Files & Documentation: The 71 variables collected during 1980 are found in the "Illegal" area of interest in the main NLSY79 data set. Background information on the development of the index, the specific procedures used to administer the confidential form, issues intrinsic to measurement of delinquent behavior and criminal activity, and an analysis of the consistency of responses to the various delinquency and police contact measures can be found in two reports authored by Crowley (1981, 1982).

Comparison to Other NLS Surveys: The NLSY97 survey asks about participation in and the intensity of various criminal activities in the previous year (round 1). In subsequent rounds respondents were questioned about the number of times they participated in criminal activity since the date of last interview.

NLSY97 round 1 youth respondents were also asked whether they had ever been arrested by the police or taken into custody for an illegal or delinquent offense (not including arrests for minor traffic violations) and the total number of times this has happened. In subsequent rounds respondents were asked about number of arrests since the last interview.

The 1968 survey of schools attended by Young Men and Young Women respondents included two questions on whether school records indicated that the respondent had been committed to or was on probation from a correctional institution. Also as part of the 1968 school survey, school records were examined for an indication that the respondent had ever been expelled or suspended from school. For more details consult the *NLS Handbook* or the appropriate cohort's *User's Guide*.

Table 4.10.1 Number of NLSY79 Respondents in Jail or Prison at Survey Date

Survey Year	Respondents in Prison/Jail	Survey Year	Respondents in Prison/Jail
1979	26	1989	139
1980	63	1990	134
1981	68	1991	121
1982	91	1992	138
1983	104	1993	146
1984	103	1994	153
1985	105	1996	150
1986	115	1998	137
1987	128	2000	121
1988	128	2002	110

User Notes: Spells of incarceration can be detected by carefully examining the household interview variables from each interview. If a respondent is in jail or in prison at the time of interview, that information is recorded (see the 'Type of Residence' variables discussion in the "Household Composition" section of this guide). Users may wish to take into account the perspective an imprisoned NLSY79 respondent brings to answering survey questions.

Crowley (1982) examined nonresponse in the special 1980 data collection and found it to be fairly low. About 2.5 percent of the sample refused to answer any questions; refusal rates on individual questions ranged from 2.6 to 3.4 percent. Adults were more likely to refuse to answer than minors, and drug-related offenses had the highest nonresponse rates. Refusal rates were higher for males, minorities, the economically disadvantaged, and high school dropouts—those expected to have higher rates of illegal activities. Crowley therefore concludes that a small amount of underreporting probably did take place.

While these illegal activities data are based on self-reports, experts on criminal behavior believe, despite the potential problems with self-reports, that this mode of data collection may be as good as or better than others. Users should consult the work of experts on these issues.

Table 4.10.2 Number of Respondents Reporting Participation within the Past Year in Illegal Activities by Gender & Race/Ethnicity: 1980 NLSY79 (Unweighted)

Activity	Total	Male	Female	Hispanic	Black	Non-Black Non-Hispanic
Respondents Aged 17 & Under[1]						
Runaway	374	180	194	69	71	234
Truant	1845	980	865	395	368	1082
Drinking	2353	1273	1080	373	451	1529
All Respondents						
Vandalism	2131	1588	543	313	468	1350
Fighting	3315	2390	925	531	1020	1764
Shoplifting	3040	1716	1324	514	721	1805
Petty Theft	2237	1498	739	297	444	1496
Grand Theft	658	541	117	103	178	377
Robbery	602	466	136	57	222	323
Assault	4395	2812	1583	556	1152	2687
Aggravated Assault	1245	880	365	155	389	701
Marijuana Use	5493	2946	2547	745	1184	3564
Hard Drug Use	2276	1251	1025	272	303	1701
Sold Marijuana	1266	880	386	154	236	876
Sold Hard Drugs	294	208	86	34	57	203
Fraud	2581	1499	1082	335	792	1454
Auto Theft	922	623	299	152	210	560
Breaking/Entering	706	609	97	96	127	483
Fencing	1343	1031	312	221	293	829
Gambling	281	233	48	48	85	148

[1] Age calculated as of date of interview.

Table 4.10.3 Number of Respondents Reporting Contact with the Police and/or Criminal Justice System by Gender, Race/Ethnicity & 1979 Family Poverty Status: 1980 NLSY79 (Unweighted)

Type of Contact	Total	Gender		Race/Ethnicity			Poverty Status in 1979		
		Male	Female	Hispanic	Black	Non-Black Non-Hispanic	Status NA[1]	Not in Poverty	In Poverty
Stopped by Police	2248	1734	514	365	517	1366	145	1610	493
Booked or Charged	1325	1056	269	207	269	849	93	913	319
As an Adult	981	812	169	136	202	643	87	686	208
Convicted	753	612	141	111	134	508	57	505	191
Assault	90	77	13	11	25	54	7	62	21
Robbery	49	46	3	8	21	20	5	26	18
Theft	237	180	57	38	42	157	20	147	70
Fraud/Forgery	17	11	6	1	3	13	1	11	5
Fencing	17	15	2	1	6	10	3	8	6
Property Destruction	62	56	6	5	8	49	7	45	10
Other Property Offense	90	83	7	7	15	68	6	51	33
Gambling	1	1	0	0	0	1	0	1	0
Vice	2	0	2	0	1	1	1	1	0
Drug Offense	106	90	16	7	12	87	9	82	15
Major Traffic Offense	118	104	14	24	8	86	6	91	21
Alcohol Consumption (Minor)	54	41	13	9	2	43	2	41	11
Sentenced Correctional Institution	313	257	56	47	73	193	35	167	111
Youth Correctional	183	139	44	27	41	115	22	83	78
Adult Correctional	157	144	13	24	46	87	17	98	42

[1] This refers to individuals for whom the income variable is missing.

References

Crowley, Joan E. "Crime and Delinquency: Descriptions and Distributions." In *Pathways to the Future: A Longitudinal Study of Young Americans. Preliminary Report on the 1980 Survey.* Michael E. Borus, ed., Columbus, OH: CHRR, The Ohio State University, 1981.

Crowley, Joan E. "Delinquency and Employment: Substitutions or Spurious Associations." In *Pathways to the Future Volume II. A Final Report on the National Longitudinal Survey of Youth Labor Market Experience in 1980.* Michael E. Borus, ed., Columbus, OH: CHRR, The Ohio State University, 1982.

NLSY79 Children

The 1988–2002 surveys included two sets of questions for children who were ten years of age and older dealing with (1) the extent of each child's self-reported participation during the past year in various illegal activities such as vandalism, shoplifting, and assault and (2) the extent of use and age of first use of cigarettes, alcohol, marijuana, and drugs. Mott and Quinlan (1993) provide a discussion of these data from the 1990 fielding.

Starting in 1994 young adult children age 15 and older were asked many of the same questions that those aged 10 to 14 were asked, as well as a series of questions closely resembling those in the 1980 main NLSY79.

Survey Instruments: The 1988–2002 *Child Self-Administered Supplements* contain the questions on crime and delinquency for the NLSY79 Children. The 1994–1998 *Young Adult Self-Report Booklets* contain the questions asked of young adults. Beginning in 2000 these self-report items were incorporated into the Young Adult CAPI questionnaire.

Data Files: Variables for NLSY79 children can be found within the "Child Self Administered Supplement xxxx" area of interest of the NLSY79 Child Data File for 1988–2002. Items for young adults are located in the "YA Self" area of interest.

Table 4.10.4 Number of Respondents Reporting Engaging in Selected Behavior in the Last Year:1988–2002 NLSY79 Children (Unweighted)

	1988	1990	1992	1994	1996	1998	2000	2002
Stayed out later than parents said	444	598	950	822	850	803	635	685
Hurt someone badly enough to need doctor	152	235	380	373	362	333	249	313
Lied to parents about something important	398	579	955	863	880	805	628	742
Took something from store without paying	100	152	275	221	239	179	131	175
Damaged school property intentionally	70	104	183	143	186	162	102	155
Got drunk	56	96	189	109	115	85	47	87
Parents had to go to school	215	326	497	446	432	411	268	348
Skipped a day of school	90	115	248	150	153	110	100	117
Stayed out late without permission	131	184	300	228	232	180	170	205

Reference

Mott, Frank L. and Quinlan, Stephen V. "The Ten-and-Over Years: Self-Reports from the Children of the NLSY79." Columbus, OH: CHRR, The Ohio State University, 1993.

4.11 Discrimination

NLSY79

Two sets of employment-related discrimination questions have been asked of NLSY79 respondents during select survey years. The first set, included in the 1979 and 1982 surveys, questioned working-age (i.e., age 16 and over) respondents on whether they believed that specific types of discrimination (race, nationality, sex, and age) had caused them problems in getting a good job. The second set of discrimination questions asked those NLSY79 respondents who had served or were serving in the military at the 1980–85 interview dates whether race, sex, or rank discrimination was one of the reasons the respondent had left the military or would choose not to reenlist. Small numbers of respondents reported these types of discrimination as a reason for leaving or not reenlisting in the military. Of related interest are (1) a question asked in the 1990 survey year that allows "discrimination" as a possible reason that a respondent feels no (further) promotions are possible with a given employer; (2) a series of questions fielded in 1980 that asked respondents about the demographic composition of coworkers; and (3) questions in 1996 and 1998 about the gender of employees/coworkers supervised. In 1996, 1998, 2000, and 2002, the NLSY79's "Training" section asked respondents if they received any equal opportunity or diversity sensitivity training.

Survey Instruments: Discrimination questions are found in Section 6, "Knowledge of the World of Work" (1979), and Section 17, "On Aspirations and Expectations" (1982). Discrimination in the military is covered in the "Military" sections of the 1980 (Section 6), 1981 (Section 5), and 1982–85 (Section 4) questionnaires. The *Employer Supplements* for 1990 contain the promotion discrimination questions, while Section 7 of the 1980 questionnaire includes coworkers' characteristics. The 1996 variables are found in Section 8 and the *Employer Supplements*. The 2000 and 2002 variables are found in Section 8.

Data Files: The 1979 and 1982 employment-related variables can be found within the "Attitude" area of interest on the main NLSY79 data set; the military-related discrimination variables can be found in the "Military" and "Misc. 1980"–"Misc. 1985" areas of interest. The promotion variables from 1990 can be found in "Misc. 1990," while the coworker demographic characteristics are located in "Misc. 1980." The 1996, 1998, 2000, and 2002 training variables are located in the "Training" area of interest and the gender-related job hierarchy questions are contained in the "Job Information" area of interest.

Comparison to Other NLS Surveys: Questions concerning work-related discrimination were fielded during various years for the Young and Mature Women and Young and Older Men. For more details, including specific years, consult the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Borus, Michael E. *Tomorrow's Workers*. Lexington, MA: Lexington Books, 1983.

Shapiro, David. "Perceptions of Discrimination and Other Barriers to Employment." In *Pathways to the Future: A Report on the National Longitudinal Survey of Youth Labor Market Experience in 1979*." Michael E. Borus et al. Columbus, OH: CHRR, The Ohio State University, 1981.

4.12 Drug Use

NLSY79

An extensive set of questions on substance use was included in the 1984 survey, with a more limited follow-up during the 1988 survey on respondents' use of marijuana/hashish and cocaine. The 1984 survey collected information on respondents' use of marijuana as well as illicit and non-prescribed use of amphetamines, barbiturates, tranquilizers, psychedelics, cocaine, heroin, and other narcotics. For each of these substances, information was collected on lifetime use, age at first use, most recent use, and frequency of use during the past 30 days. In addition, retrospective data on respondents' monthly use of marijuana from January 1979 through the 1984 survey date were gathered. The extent of respondents' prescribed use of three types of drugs (amphetamines, barbiturates, and tranquilizers) was also collected. Respondents who were working or in the military were asked whether, since the date of last interview or since their job/military duty began, they had used or "felt high" from one or more of these substances and how frequently they had used each on the job.

A special *Drug Use Supplement* was administered during the 1988, 1992, 1994, and 1998 surveys to collect information on age at first use of marijuana/hashish, crack, cocaine, and other drugs; lifetime use; most recent use; and use in the past 30 days. The 1992, 1994, and 1998 questionnaires also asked about respondents' use of prescribed and nonprescribed sedatives, tranquilizers, stimulants, and pain killers. Beginning in 1994, respondents were asked to directly enter their answers into a laptop computer.

Other drug use questions are found in (1) the 1988, 1990, 1992, and 1994–2002 fertility series, which included questions on use of marijuana or cocaine in the twelve month period before first/second pregnancies (see the "Birth Record xxxx" areas of interest) and (2) the "Delinquency and Drugs" section of the 1980 survey, which gathered information on the frequency with which respondents were engaged during the past year in smoking/selling marijuana or other drugs (see the "Crime, Delinquency, & Arrest Records" section of this guide).

Survey Instruments: The main set of drug use questions can be found in Section 14 of the 1984 and 1988 questionnaires and the 1988, 1992, 1994, and 1998 *Drug Use Supplements*. Section 9 of the 1988, 1990, 1992, and 1994–2002 questionnaires includes the drug use during pregnancy questions. Sections 15 and 16 of the 1980 survey instrument and *Form J* contain the illegal activities series.

Data Files: The "Drugs" area of interest on the main NLSY79 data set contains the drug use variables.

Comparison to Other NLS Surveys: The NLSY97 round 1 survey first established whether the respondent had ever used marijuana and asked for the respondent's age at first use. In subsequent rounds all

respondents were asked whether they had used marijuana since the date of last interview. Each survey then collected additional information on the number of days the respondent smoked marijuana in the 30 days prior to the interview. Finally, questions determined the number of times the respondent used marijuana right before or during school or work in those 30 days. For more information, refer to the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Abma, Joyce C. and Mott, Frank L. "Substance Use and Prenatal Care During Pregnancy Among Younger Mothers: Linkages and Antecedents." *Family Planning Perspectives* 23,2 (May/June 1991).

Fendrich, Michael and Mackesy-Amiti, Mary Ellen. "Inconsistencies in Lifetime Cocaine and Marijuana Use Reports: Impact on Prevalence and Incidence." *Addiction* 90,1 (January 1995)L: 111–18.

Fendrich, Michael and Vaughn, Connie M. "Diminished Lifetime Substance Use Over Time: An Inquiry into Differential Underreporting." *Public Opinion Quarterly* 58 (1994): 96–123.

Gleason, Philip M.; Veum, Jonathan R.; and Pergamit, Michael R. "Drug and Alcohol Use at Work: A Survey of Young Workers." *Monthly Labor Review* 114,8 (August 1991): 3–7.

Kaestner, Robert. "The Effect of Illicit Drug Use on the Wages of Young Adults." *Journal of Labor Economics* 9,4 (1991): 381–412.

Kandel, Denise B. and Davies, Mark. "Cocaine Use in a National Sample of U.S. Youth: Epidemiology, Predictors, & Ethnic Patterns." In *The Epidemiology of Cocaine Use and Abuse,* C. Shade and S. Shober, eds. NIDA Research Monograph, Rockville, MD: National Institute on Drug Abuse, 1990.

Mensch, Barbara and Kandel, Denise. "Underreporting of Substance Use in a National Longitudinal Youth Cohort: Individual and Interview Effects." *Public Opinion Quarterly* 52,1 (Spring 1988): 100–24.

Schober, Susan E.; Fe Caces, M.; Pergamit, Michael R.; and Branden, Laura. "Effect of Mode of Administration on Reporting of Drug Use in the National Longitudinal Survey." In *Survey Measurement of Drug Use: Methodological Studies*, C.F. Turner et al., eds. Rockville, MD: Division of Epidemiology and Prevention Research, National Institute on Drug Abuse, 1992.

NLSY79 Children

During the 1988–2002 surveys, children who were ten years of age and older answered a series of questions on whether they had ever used marijuana and/or other drugs such as LSD, cocaine, etc. If so, they reported whether such use had occurred in the past three months and how old they were at first use. Mott and Quinlan (1993) describe the substance use data collected during the 1990 fielding. In 1994–1998, a detailed series of substance use questions were also asked of children aged 15 and older. Young Adults were asked an even wider range of questions concerning illicit drugs beginning in 2000.

Survey Instruments: The 1988–2002 *Child Self-Administered Supplements* and the 1994–1998 *Young Adult Self-Report Booklets* contain the drug use questions.

Data Files: Drug use variables for the NLSY79 children are described in the *NLSY79 Child & Young Adult Data Users Guide* and are located in the 1988–2000 "Child Self Administered Supplement xxxx" area of interest for the corresponding years on the data file. Items for young adults are located in the "YA Self" area of interest.

Reference

Mott, Frank L. and Quinlan, Stephen V. "The Ten-and-Over Years: Self-Reports from the Children of the NLSY79." Columbus, OH: CHRR, The Ohio State University, 1993.

4.13 Educational Attainment & School Enrollment

NLSY79

Information on NLSY79 respondents' educational experiences has been collected during each survey year. In addition, three special data collections conducted during 1980–83 gathered the following for select universes: (1) supplementary information on degrees and certifications received as of the 1980 survey; (2) detailed information on the amount of time spent at school on each of the past seven days and the amount of time spent in various school-related activities, e.g., attending classes, studying, participating in other activities; and (3) high school course information gathered (directly from school records) during the 1980–83 transcript surveys. This section will review the primary types of enrollment and attainment data collected during the main NLSY79 surveys. More information on the special school/transcript surveys can be found in the "School & Transcript Surveys" section of this guide. Descriptions of the various standardized test scores available for NLSY79 respondents can be found in the "Aptitude, Achievement & Intelligence Scores" section.

Data have been collected during each NLSY79 survey on respondents' current school enrollment status, highest grade attended, and highest grade completed. Additionally, each survey recorded the month and year in which respondents obtained their high school diploma or General Equivalency Diploma (GED). During select survey years, information was also gathered on type of high school curriculum, whether the respondent was enrolled full- or part-time in college, the types of diplomas or college degrees received, and major field of study in college. Data on the timing of a college degree are available for the early survey years, while the variables, 'Month/Year Received Highest Degree' for the highest degree ever received (including high school diploma) and 'Type of Highest Degree Completed Since Last Int,' are available for post-1987 interviews. Beginning with the 1981 survey, information was gathered on the specific months and years in which those respondents who had attended school since the last interview were enrolled. During the 1979–85 surveys, respondents who had served in the Armed Forces since the last interview or were serving at the current interview date were asked a series of questions on high school or college courses taken and years of school completed while in the Armed Forces.

Two sets of variables have been created that summarize each respondent's school enrollment status and highest grade completed as of May 1 of each survey year. Codes for the names and locations of recent colleges attended, i.e., Federal Interagency Committee on Education (FICE) codes, are available for some years on the restricted-release geocode files. Finally, data on highest grade completed are available for household members (available all years), all siblings (1993), mother/father (1979), and current/most recent spouse (1979–82). Table 4.13.1 summarizes the major types of NLSY79 educational status and attainment variables and identifies the survey years during which such data were collected.

Table 4.13.1 Educational Attainment & School Enrollment Variables: 1979–2002

Variable	Survey Years
Current School Enrollment Status	
Currently attending or enrolled in school	1979–2002
Grade attending	1979–2002
Specific months R was attending regular school since last interview	1981–2002
Month/year last enrolled in school (not enrolled)	1979–2002
Reason left school (not enrolled)	1979–2002
Any high school/college courses taken while in Armed Forces	1979–85
Enrollment status as of May 1 survey year	1979–2002
Highest Grade Attended or Completed	
Highest grade attended since last interview	1979–2002
Highest grade completed since last interview	1979–2002
Years of school completed while in the Armed Forces since last interview	1979–85
Highest grade completed as of May 1 survey year	1979–2002
Type of High School Curriculum	
Type of current/last school curriculum in grades 9–12	1979–85
1st–8th high school subject during most recent enrollment; grades 9–12	1979
High school courses from the Transcript Surveys	1980–83
Nature of high school program	1980
Major Field of Study in College	
Major field of study current/last college attended	1979–83
Major field of study most recent and 2nd/3rd most recent college attended	1984–86, 1988–90 & 1992–2002
College Status	
Full time/part time status (in college last enrolled since 9/1 past year)	1979–83
Full time/part time status most recent and 2nd/3rd most recent college	1984–86, 1988–90 & 1992–2002
Attainment of a High School Diploma and Other Degrees	
Ever received degree/diploma	1979
Have high school diploma or equivalent	1979–2002
Have diploma or GED	1979–2002
Month/year received diploma or GED	1979–2002
Received degree since last interview	1980–84, 1989–2002
Received more than one college degree since last interview	1981–84
Diploma/degree received during or since recent Armed Forces enlistment	1979–85
Highest degree ever received (including high school diploma)	1988–2002
Month/year received degree/highest degree	1979–80, 1988–2002
Types of diplomas/college degrees received	1979–84
Types of diplomas/college degrees received during or since recent enlistment	1979–85
Name and Geographic Location	
State location of current/last college attended	1980–82
Location of most recent college(s) attended	1984–86, 1988–90 & 1992–2002
FICE code of most recent and 2nd/3rd most recent college attended	1984–86, 1988–90 & 1992–2002

Table 4.13.1 Educational Attainment & School Enrollment Variables: 1979–2002 (continued)

Variable	Survey Years
College Loans	
Educational loan received for this year's college expenses	1979–83
Educational loan received to cover most recent and 2nd/3rd most recent college attended	1984–86, 1988–90 & 1992–2002
Total amount of educational loans: most recent and 2nd/3rd most recent college attended	1984–86, 1988–90 & 1992–2002
Household/Family Members	
Highest grade completed for each household member	1979–2002
Highest grade completed for R's mother, father, oldest sibling	1979
Highest grade completed for R's current or most recent spouse	1979–82
Highest grade completed for all siblings	1993

Survey Instruments & Documentation: Core education questions are found in the yearly questionnaires in the "Regular Schooling" sections (see Section 3 or 4) and the "Military" sections (Section 7 [1979], Section 6 [1980], Section 5 [1981], and Section 4 [1982–85]). "Regular school" provides credit toward an academic degree or diploma (for a further definition, see Appendix D in this guide). Sections 14 and 12 of, respectively, the 1979 and 1980 questionnaires collected supplementary information on the types of degrees and other certifications that the respondent had obtained.

"Attachment 7: Other Certificate Codes" found within the *NLSY79 Codebook Supplement*, provides the 1979 codes, e.g., associate degree, bachelor's degree, or master's degree, as well as the various types of certifications, e.g., practical nurse, welding, insurance, etc., that respondents reported ever having received. "Attachment 4: Fields of Study in College" provides the coding classifications for the major field of study variables. Copies of the transcript coding form and course codes can be found in the separate *NLSY High School Transcript Survey: Overview and Documentation*. Creation procedures for the 1990–2000 enrollment status and highest grade completed as of May 1 variables are provided in "Appendix 8: Highest Grade Completed and Enrollment Status." "Attachment 102: FIPS Codes" and "Attachment 105: Addendum to FICE Codes," both contained within the *NLSY79 Geocode Codebook Supplement*, provide state coding information for the locations of colleges attended and assignment of codes.

Data Files: Most variables related to schooling are located in the "School," "Degrees & Certificates," "Military," or "Misc. xxxx" areas of interest. The yearly created variables on enrollment status and highest grade completed are found in the "Key Variables" area of interest. The special high school course information has been placed in "Transcript Survey," while the 1981 time use data (which tracked hours and minutes spent at various major activities, including school) is located in "Time Use." Family and household member educational attainment variables are found, respectively, in the "Family Background"

and "Household Record" areas of interest. The "Geocode xxxx" areas of interest on the Geocode CD contain data on the specific colleges attended (FICE codes).

Related Topics: Additional information on schooling as it relates to other areas of the respondent's life, such as employment, income, and childcare, has been collected in many survey years, as has information about investments in other types of schooling or training. These schooling-related responses and, in most cases, the specific question subjects to which they pertain, are depicted in Table 4.13.2 by questionnaire section and area of interest.

Comparison to Other NLS Surveys: Enrollment status in the past year, current enrollment status, highest grade attended and completed, and degrees and diplomas received have been collected for all cohorts except the Older Men. Respondents in the Older Men cohort provided information on their highest grade completed and highest college degree received. For more details about specific survey years in which these data were gathered, refer to the *NLS Handbook* or the appropriate cohort's *User's Guide*.

Table 4.13.2 Other Schooling-Related Variables

Questionnaire Section	Area of Interest	Schooling Information
"Current Labor Force Status"	CPS (there was no CPS section in 2000 or 2002)	"school interfered" - reason for absence from work last week "attends school" - reason worked less than 35 hours last week "going to school" - activity most of survey week "left school" - reason began looking for work "school employment service" - method of job search "going to school" - reason could not accept job survey week
"Current Labor Force Status"	Misc. xxxx (there was no CPS section in 2000 or 2002)	"lacks (schooling) necessary skills" - reason not currently seeking employment "in school/training" - reason not currently seeking employment "training or education opportunities including tuition reimbursement" - fringe benefits at current/most recent job (1988–93) emp. supp. 1994–2002
Employer Supplement	Job Information Periods Not Working within Job Tenure	"interfered with school" - reason for leaving job (1979) "going to school" - reason out of the labor force for gap within job "going to school" - reason for gap within job
"Periods Not Working or in Military"	Between Job Gaps	"in school" - reason not working during up to six periods each year (1980–2002)
"Training"	Training	types of schools and training programs enrolled in including business school, vocational/technical institute, apprenticeship, correspondence school, company/military training, etc.
"Income and Assets"	Income	educational benefits from G.I. Bill or VEAP/scholarships, fellowships, grants
"Childcare"	Childcare	"going to school or college" in last four weeks - reason for needing childcare if satisfactory childcare were found, would R go to school more hours/would R go to school (1982–84)

User Notes: The longitudinal collection of schooling experiences generates the possibility of respondent-reported inconsistencies. Mauldon (1990) reports on the discrepancies in NLSY79 retrospective versus panel data for one subset of NLSY79 variables, those containing information on school absences. A review of NLSY79 schooling data (Chuang 1990) indicated the following types of inconsistent observations: (1) respondents currently attending school whose "grade currently attending" is the same as the highest grade completed; (2) highest grade attended or grade currently attending decreases over time; (3) highest grade completed decreases over time; (4) highest grade attended or grade currently attending is the same as the highest grade reported for a previous year; (5) highest grade completed was less than 12 but greater than zero as of the year in which the respondent said he or she received a high school diploma; and (6) highest grade attended or grade currently attending is less than the highest grade completed at the same year. Some of these inconsistencies reflect complications from interrupted careers in college, transfers between colleges, and changes in major field of study. Dilemmas inherent in measuring educational attainment in another national survey, the *Current Population Survey*, some of which have relevance for the NLSY79, are discussed in Kominski and Siegel (1993) and Frazis, Ports, and Stewart (1995).

Due to some problematic coding practices, cross-wave matches of original supplemental FICE codes cannot be assumed. Persons for whom matches of these supplemental codes are an important consideration should use the revised set of FICE codes in the Geocode data file and the "FICETYPE" variables describing the type of code assigned.

On the 1994 release of the data, a clean-up was conducted on the coded and created schooling variables. Although this clean-up removed most of the inconsistencies described above, users should be aware that some problems continue to exist. For a discussion of the source of error in and adjustments made to these standard variables, see Appendix 8 in the *NLSY79 Codebook Supplement 1979–2002*. Creation procedures for recent 'Highest Grade Completed' variables are provided within the NLSY79 documentation. This computer code factors the following information into the attainment status of each NLSY79 respondent: (1) school attendance since last interview; (2) grade or year of school attending; (3) highest grade of regular school ever attended; (4) highest grade or year of school completed and for which grade credit was received; (5) receipt of a high school diploma or GED since last interview; (6) receipt of diploma or GED; (7) month/year last enrolled; and (8) current enrollment status. Users needing creation procedures for earlier survey years should contact CHRR. In addition, revised 'Highest Grade Completed' and 'Enrollment Status' variables, which seek to clean up some of the inconsistencies noted above, have been added to the data set. See Appendix 8 in the *Codebook Supplement* for a description of these revisions.

References

Chuang, Hwei-Lin. "Descriptions for the School Array and Highest Grade Completed Array." Draft Notes, CHRR, The Ohio State University, 1990.

Frazis, Harley; Ports, Michelle Harrison; and Stewart, Jay. "Comparing Measures of Educational Attainment in the CPS." *Monthly Labor Review* 118,9 (September 1995): 40–44.

Kominski, Robert and Siegel, Paul M. "Measuring Education in the *Current Population Survey*." *Monthly Labor Review* 116,9 (September 1993): 34–38.

Mauldon, Jane. "How Well Do Retrospective Recalls Match Panel Reports." Working Paper, University of California - Berkeley, 1990.

NLSY79 Children

Schooling information is available within the NLSY79 Child Data File on (1) children assessed during each child survey year; (2) NLSY79 mothers; (3) members of the mother's household such as spouse, partner, or other adult household members; (4) young adult respondents; and (5) partner or spouse of the young adult respondents.

Child's Schooling: Current school enrollment and grade information has been collected during the child assessment surveys for each child four years of age or older. Grade information is gathered for both those children currently attending and those who have ever attended regular school. Post-1986 child surveys included a set of questions for children three years of age or older (under age 9 in 1990) on whether they were attending nursery school or a preschool program or had ever been enrolled in a preschool program, day care, or Head Start. The Head Start series provides information on age first attended, length of time attending, and how satisfied the child's mother is with the Head Start program. Mothers of children aged ten or older (1986–94) or five and older (1996–2000) were asked during post-1986 child assessment interviews for additional information on their child's schooling experiences. For those children attending school, two sets of questions were fielded on the type of school attended. The first differentiates between "public," "private," or "religious," while the second identifies the school as a "school for gifted children," a "school for handicapped children," or a "regular public or private school." Information was also collected for those children attending school on (1) whether the child was attending special classes for remedial or advanced work and (2) whether the child had ever repeated a grade and, if so, the reason(s), e.g., the child had failed academically, was too young or immature, had moved to a more difficult school, was truant, frequently absent, etc. Reasons why children were not attending school were identified by each mother; coding categories include expulsion/suspension, physical/emotional/mental condition, the school was closed, and the child's father would not let the child attend.

During the child interviews, children ages ten and older (including young adults) supplied information on (1) the grade they currently (or had last) attended; (2) characteristics of their school; and (3) satisfaction

with their school. Satisfaction items addressed to the children are identical to those asked of their mothers in 1979. Mott and Quinlan (1993) discuss these child data. Finally, the 1996 schooling section of the survey was augmented for both the children aged 10 to 14 and the young adults. This expansion asked the children about the extent of involvement by their parents in homework and the school community. It also solicited information on the frequency of certain activities in the classroom, such as using a textbook or workbook or having student presentations. The Young Adult survey also includes questions relating to high school and college attendance, including types of schools and degree attainment.

As was done with their NLSY79 mothers, a survey was done of the schools NLSY79 children attended. This school survey collected information for the 1994–95 school year during 1995 and 1996 for children over the age of five. The school survey was comprised of three parts. The first part was a questionnaire completed by the principal of the school. Data from this questionnaire include information about the characteristics of the school, school policies and practices, and school-community interfaces. The second part of the survey was a questionnaire filled in by the school's office personnel. This questionnaire asked questions about the child and included information on the child's grade, attendance record, and involvement in special programs. The third part of the survey was based on transcripts from the school for the child. Data from some or all of these parts are available for 4,441 children. Readers interested in more information should consult the *NLSY79 Child School Survey User's Guide*.

Mother's Educational Enrollment & Attainment: Two sets of variables on the schooling and educational attainment of each mother have been created for the Child data set: 'Highest Grade Completed by Mother' as of each interview and whether or not 'Mother Currently is Attending or is Enrolled in Regular School.' Users of the Child data file must access the main youth data to obtain all educational status and attainment variables listed earlier in Table 4.13.1.

Spouse/Partner & Adult Household Members' Educational Attainment: Three sets of variables are available for each survey year on the educational attainment of other members of the mothers' household (HH): (1)'HGC (Highest Grade Completed) by Spouse of mother in HH'; (2) 'HGC by Partner of mother in HH'; and (3) '# of Adult HH Members with Highest Grade Completed,' which groups household members by years of schooling, e.g., "less than 12," "12–13," "14–15," "16 or more."

Survey Instruments & Documentation: The child's current school enrollment and grade information is collected within Section 1 "Background" of each assessment year's *Child Supplement.* In 1994–2002, this information was collected within the schooling section of the *NLSY79 Young Adult Questionnaire* for children aged 15 and older. The type of school — and reason not attending child series were collected within the "School and Family Background" sections of the 1988, 1990, 1992, 1994, 1996, and 1998 *Mother Supplements.* The child school description and satisfaction measures were gathered within the

1988–2002 *Child Self-Administered Supplement*s and the 1994, 1996, and 1998 *Young Adult Self-Report Booklets.*

Data Files: The child's current school enrollment and grade variables and the child school description and satisfaction measures are located in the "Child Supplement xxxx" areas of interest for the corresponding year. The type of school and reason not attending variables have been placed within the "Mother Supplement xxxx" areas of interest for the relevant years. The two created variables on mothers' schooling can be found in the "Child" area of interest "Family Background." Variables describing the educational level of household members have been placed within the "Maternal Household Composition" area of interest. The young adult variables are located in the "YA School" area of interest.

References

Mott, Frank L. and Quinlan, Stephen V. "Participation in Project Head Start: Determinants and Possible Short-Term Consequences." Columbus, OH: CHRR, The Ohio State University, 1992.

Mott, Frank L. and Quinlan, Stephen V. "The Ten-and-Over-Years: Self-Reports from the Children of the NLSY." Columbus, OH: CHRR, The Ohio State University, 1993.

"NLSY79 Child School Survey of 1994–1995 User's Guide," CHRR, The Ohio State University, December 1997.

4.14 Family Background

NLSY79

Family background is a key element of the NLS because parent and sibling attributes have a significant impact on a respondent's future life experiences. This section examines the data available on the NLSY79 respondents' parents and siblings as well as on the respondents' early characteristics.

Parent Information

The majority of parental information was collected in the 1979 survey (see R00061.–R00089.). Users are cautioned that a significant amount of data are legitimately missing in this section. For example, 28 respondents stated that they never knew their mother and 230 stated they never knew their father. These individuals were skipped over all parent questions in 1979. Data are also missing for 121 additional respondents who did not know in what state or country their mother was born and 269 who did not know their father's birthplace. Respondents able to answer questions about their parents were asked:

(1) *Mother's and Father's Birthplace*. The raw data show 11,310 mothers and 11,161 fathers were born in the United States, while 1,328 mothers and 1,223 fathers were born in another country. The survey also requested information on the specific state or foreign country in which the parent was born.

(2) *Highest Grade Completed*. Almost half of mothers (46 percent) and fathers (49 percent) either have less than a high school diploma or have "don't knows" or "invalid skips" reported.

(3) *Mother and Father Living or Dead*. In 1979, only 324 respondents stated their mother had died but 1,006 respondents stated their father was no longer living.

(4) *How Much of the 1978 Calendar Year Did Mother and Father Work for Pay*? Respondents reported that 59 percent of the mothers and 81 percent of the fathers worked for pay during all or part of 1978. An additional question asked if the parent worked more or less than 35 hours a week.

(5) *Mother's and Father's 3-Digit Occupation.* The most often cited occupations for a mother were Clerical and Kindred worker (1,760) while for a father they were Craftsman, Foreman, and Kindred worker (2,310).

(6) *Does Respondent Live With Parents?* There are two separate variables that asked with whom the respondent lived. The one-third of respondents who did not live with their mother and three-eighths not living with their father were asked the distance they lived from that parent.

(7) *Do Parents Live Together*? If the respondent was not living with either parent, the interviewer asked if their mother and father lived in the same household.

Parental Age: Many researchers are interested in knowing how old a parent is when a child is born. This subsection explains how to calculate the age of a respondent's parent at the respondent's birth by subtracting the respondent's age in 1979 from their parent's age in 1979.

Much of the age information comes from questions asked in 1987 and 1988 that determined when most parents were born. In 1987, respondents were asked for the day, month, and year that their natural

parents were born. If they did not know, respondents were asked for that parent's age in years. In 1988, the questions were repeated, but only respondents who did not answer the 1987 series were asked to provide this information. The program in Table 4.14.1, which calculates the father's age in 1979, provides three separate models for creating a variable to calculate parents' ages. The computer code is listed in the second column, with an explanation in the third column. This program, and the similar one for mothers, results in an age for almost 77 percent of fathers and almost 87 percent of mothers.

Other Parent Information: Researchers can find additional information about parents in the household record if the parents lived with the respondent during any of the survey years. Parents can be found in the household record by searching the relationship fields. The relationship code for fathers in the household is "4," while mothers are coded "5." The household record in each year contains information on the person's age, highest grade completed, sex, and work history in the past calendar year.

Table 4.14.1 Computer Code to Create Father's Age in 1979

A	if (R2303200 > 0) then dad_age = R2303200 - 8	1) If age in 1987 exists, set age to - 8. The subtraction results in the father's age in 1979 NOT 1987. End algorithm.
	if (R2505400 > 0) then dad_age = R2505400 - 9	2) If age in 1988 exists, set age to age - 9. End algorithm.
B	if (R2303100 ^= 66) and (R2303100 > 0) then dad_age = 79 - R2303100	1) Try birth year from the 1987 survey. Note 66 means the respondent never knew the parent.
	if (R2505300 ^= 66) and (R2505300 > 0) then dad_age = 79 - R2505300	2) Try birth year from the 1988 questionnaire.

C	if ((R0175800 = 4) and (R0175900 > 0)) then Dad_age = R0175900;
	if ((R0176700 = 4) and (R0176800 > 0)) then Dad_age = R0176800;
	if ((R0177600 = 4) and (R0177700 > 0)) then Dad_age = R0177700;
	if ((R0178500 = 4) and (R0178600 > 0)) then Dad_age = R0178600;
	if ((R0179400 = 4) and (R0179500 > 0)) then Dad_age = R0179500;
	if ((R0180300 = 4) and (R0180400 > 0)) then Dad_age = R0180400;
	if ((R0181200 = 4) and (R0181300 > 0)) then Dad_age = R0181300;
	if ((R0182100 = 4) and (R0182200 > 0)) then Dad_age = R0182200;
	if ((R0183000 = 4) and (R0183100 > 0)) then Dad_age = R0183100;
	if ((R0183900 = 4) and (R0184000 > 0)) then Dad_age = R0184000;
	if ((R0184800 = 4) and (R0184900 > 0)) then Dad_age = R0184900;
		Look at the household record to see if the father lived in the household in 1979. If the father lived in the household, his age should be listed. Fathers are coded as "4" on the household record.

Siblings

The majority of sibling information was collected in two phases: One set of questions was asked in 1979, while the second set of questions was asked in 1993. Users are cautioned that some sibling data is missing. The first sibling question in 1979 (R00090.) asked if respondents were certain or uncertain about who their brothers and sisters are. This question shows that 1,814 out of the 12,686 respondents were uncertain of the identities of their siblings. Respondents who were unsure were instructed to "think of

whomever you consider as your brothers and sisters" as the valid set of siblings. Hence, half-brothers and sisters for some, but not all, respondents will be included in the 1979 set of questions. The 1979 questions (R00090.–R00095.) capture the following information:

(1) *Number of Siblings*. The raw data show that the modal number of siblings is two. Respondents' answers to this question range from zero siblings to 29.
(2) *Number of Siblings Attending School*. The raw data show that the modal number of siblings in regular school is one. Respondents' answers to this question range from no siblings in school to 16.
(3) *Number of Siblings Older Than R*. Most respondents had 1 sibling older than themselves.
(4) *Age of Oldest Sibling*. The age of a respondent's oldest sibling (older than the respondent) ranges from 14, just above the minimum age for inclusion in the survey, to 52 years old.
(5) *Highest Grade Completed By Oldest Sibling*. As had the parents, the typical (modal) oldest sibling completed 12 years of schooling.

Understanding siblings is important because brothers and sisters often provide influential behavioral examples for younger siblings. Beyond the 1979 data, a special sibling supplement is available. This module was funded in 1993 by the Bureau of Labor Statistics in an effort to assess the general representativeness of the siblings contained in the multiple respondent records of the original NLSY79 sample. The module, which is located on the data set as reference numbers R41251. to R41345., contains information on up to 13 siblings for each respondent. For each of 12 siblings, the interview gathered:

- Number of years younger or older than respondent
- Sex
- Highest grade completed
- Number of children
- Age of sibling at birth of first child

For the 140 respondents who have more than 12 siblings, an additional set of questions gathered data on the characteristics of each respondent's youngest sibling. Researchers using this data set should read a special report on the supplement's data quality, available from NLS User Services. The report, entitled *The Collection of Sibling Attributes: Some Data Quality Issues,* shows that "response rates are highest for items which are easier to recall and which do not change in 'value' over time as siblings leave the parental household and reduce daily contact" (Haurin 1994). Additionally, the report finds that response levels drop substantially when a respondent has more than four brothers or sisters.

In 1994 a special 14-question module was added to the "Marital History" section of the questionnaire. This module confirmed information on respondents who, during the 1993 sibling supplement, stated that they were either a twin or triplet. Questions in this module also provide additional information on the respondent's twin (triplet) sibling(s). These items are contained in variables R45215.–R45228.

Respondent Background

The NLSY79 contains a variety of information on a respondent's background characteristics. Researchers interested in the race and ethnicity of a respondent are encouraged to read the topical section entitled "Race, Ethnicity & Nationality" in this guide. Researchers interested in a respondent's education should refer to the "Educational Attainment & School Enrollment" section. The current topic focuses on three sets of background information: religion, home life at age 14, and residence history.

Religion: Questions about religious affiliation were asked of NLSY79 respondents in 1979, 1982, and 2000. The 1979 questions asked the respondents in what religion they were raised and their present religion. In addition to religious affiliation questions, the survey also asked the frequency with which a respondent attended religious services. Respondents were asked if they never attend, attend several times a year, about once a month, three times a month, about once a week, or more than once a week.

Table 4.14.2 summarizes responses to the questions on religion for respondents who provided valid answers to all three. The table shows that while 96 percent of all respondents were raised in some type of religion, only 89 percent had a religious affiliation in 1979 and 1982. Users should note that many people who were classified as "other" religions in 1979 were reclassified in 1982 as "general Protestant."

Table 4.14.2 Religious Affiliation and Upbringing of Respondents (Unweighted Data) [1]

Religion	Raised As	Percent	Affiliation in 1979	Percent	Affiliation in 1982	Percent
None	495	4.1	1361	11.3	1356	11.3
Protestant	571	4.8	615	5.1	1580	13.2
Baptist	3445	28.7	3082	25.7	3183	26.5
Episcopalian	194	1.6	164	1.4	163	1.4
Lutheran	645	5.4	580	4.8	599	5.0
Methodist	943	7.9	828	6.9	771	6.4
Presbyterian	319	2.7	270	2.3	290	2.4
Roman Catholic	4037	33.7	3697	30.8	3739	31.2
Jewish	104	0.9	99	0.8	96	0.8
Other	1242	10.4	1299	10.8	218	1.8
Total	11995	100	11995	100	11995	100

[1] Universe is restricted to respondents with valid responses to all three questions.

The sequence of questions on religion was also asked about the respondent's spouse in 1982, 2000, and 2002. Additionally, in 1988, 1992, 1994, 1996, 1998, 2000, and 2002, respondents were asked how often they argue about religious matters with their spouse (see, for example, R27085., R38831., and R49587.).

Home Life at Age 14: The 1979 NLSY79 survey contained a section asking respondents to describe aspects of their life at age 14. The first questions determined whether the respondent lived in the United States or outside its borders at age 14. Respondents living in the United States were asked whether they lived in a rural or urban area. If they lived outside the United States, they were asked in what country.

After establishing the respondent's location, the survey then asked about the adults the respondent lived with during this time. These data provide information on the household structure during the respondent's teenage years. The survey additionally asks about the work characteristics and occupations of adults in the household.

Finally, the family background at age 14 section included three general literacy questions. The first question asked if the respondent or anyone else in his or her family regularly received magazines during the time period in question, while the second asked about the receipt of newspapers. Fifty-six percent of NLSY79 respondents stated they or a family member received magazines; more than 76 percent received newspapers. The third question asked about library cards. Seventy percent of all respondents reported that either they or someone in their household held a library card.

Residence History: Respondents' family backgrounds were also addressed in 1979 and 1988 through questions about childhood residence. The 1979 question asked, "With whom were you living when you were 14 years old?" In 1988, a much broader set of questions was funded by the U.S. Department of Health and Human Services to supplement the 1979 data. This supplement, the *Childhood Residence Calendar*, enlarged the 1979 question's focus by creating a retrospective year-by-year history of each respondent's childhood from birth to age 18. The supplement focused on long-term changes by asking respondents to report living arrangements that lasted at least four months.

The key 1988 residence question is R27379. This question asked each respondent if they lived with both biological parents from birth to age 18. Respondents who stated yes were skipped over the residence section while respondents stating no were asked to fill out the residence history. In 1988, every interviewed respondent completed this question; there are no missing responses.

Information was obtained on ages at which a respondent lived with either a biological, step, or adopted mother or father. For those individuals not residing with any parent-type adult at a given age, follow-up questions detailed other multiple forms of living arrangements such as residence with grandparents, other relatives, foster care, and group or institutional arrangements. Auxiliary questions documented the age at which the respondent stopped living with a parent, which parent-type this happened to be, the reason for the change, and the frequency of visitation with the absent parent within one year after the change. The 1988 responses also provide detailed information on the reason and length of time respondents spent in

alternative living arrangements. This enables a researcher to identify how often a respondent changed residence due to divorce or parental death. Users should note that if a respondent lived with at least one parent, the survey prevented them from reporting that they also lived in an alternative arrangement. For example, if a respondent lived with both her mother and grandmother, she would be marked as living with one parent even though potentially up to three adults are present in the household.

A report providing a description and evaluating the quality of this data is available from CHRR (Haurin, 1991). Haurin (1991) compared the 1979 responses with the retrospective survey and found similar answers (see Table 4 in the Haurin study). The data show that, in 1988, about 1.6 percent more of the sample indicated they lived with two parents when they were 14 years old than had reported this arrangement in 1979. The difference was larger among minorities than non-black/non-Hispanics.

Survey Instruments: Interested users should see Section 1 of the 1979, 1982, or 2000 NLSY79 questionnaire for parental background information, home life at age 14, or religion questions. Section 2 of the 1987 questionnaire contains parental age information. Section 2 of the 1993 questionnaire contains the sibling module. Additional childhood information was collected in Section 16 of the 1988 questionnaire.

Data Files: Most of the variables described above may be found within the "Family Background" areas of interest.

Comparison to Other NLS Surveys: Data provided by the respondent about his or her parents are available for all cohorts. Cohort respondents have provided information about the country of birth and life status of their parents, as well as the educational attainment and occupation of their parents during their teenage years. NLSY97 respondents and the Mature and Young Women also provided information about their parents' health and income and about transfers of time and money to and from their parents.

The NLSY97 survey identifies siblings on the household roster giving age and relationship to the respondent. In 1976, 1977, and 1978 respectively, a full collection of information about siblings was included in the surveys of Young Men, Mature Women, and Young Women of the Original Cohorts. For more information, refer to the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Haurin, R. Jean. *Childhood Residence Patterns: Evidence From The National Longitudinal Surveys of Work Experience of Youth*. Report to the U.S. Department of Health and Human Services. Columbus, OH: CHRR, The Ohio State University, 1991.

Haurin, R. Jean. "The Collection of Sibling Attributes: Some Data Quality Issues." Columbus, OH: CHRR, The Ohio State University, 1994.

NLSY79 Children

Due to its design, the entire NLSY79 main survey provides family background information for the Children of the NLSY79. However, there are a few questions that supplement the data collected in the main survey. The young adults are asked about the occupation, educational attainment, and race/ethnicity of their biological father. They also provide information on the frequency of contact with their biological father if he does not reside in their household and/or with their mother if they no longer reside in her household. The Young Adult survey also contains a short migration sequence and questions about the young adult's religion as well as the religion of any spouse or partner the young adult has had.

Survey Instruments: Section 2 of the young adult questionnaires contains the questions about the respondent's biological father, as well as contact with absent parent(s) questions.

4.15 Fertility

NLSY79

Every NLSY79 survey has included a section on fertility. In each survey year, both men and women are asked if they have had children. NLSY79 surveys are designed so that it is possible to construct a detailed history of each respondent's fertility.

The first three NLSY79 surveys (1979, 1980, 1981) have very short fertility sections. In 1979, respondents were asked if they had ever had any children. For those individuals who answered "yes," the number of children as well as their birth dates were recorded. In addition, youths were asked about the total number of children they desired and expected to have. The 1980 and 1981 surveys updated information for respondents who had any children since the last survey.

In 1982 the fertility data collection was greatly expanded due to additional funding provided by the National Institute of Child Health and Human Development (NICHD). During this survey, full retrospective information about the respondent's fertility history was collected. Men and women were sent through separate sections. Men were asked not only the child's birth date but also the child's sex, where the child lived, and, if the child was deceased, the date of death. Women were asked the same information as the men in addition to detailed questions about each pregnancy, enabling researchers to track the wantedness, length, and outcome of each pregnancy. Information about the interval between each live-birth pregnancy was also recorded, such as whether or not the couple was using birth control prior to the pregnancy. Combining these data with questions about whether the pregnancy was wanted provides researchers with the ability to distinguish between planned and unplanned pregnancies. Male respondents were asked about the wantedness of the first child only. Finally, all respondents were questioned about current contraceptive practices and their expectations about future fertility.

Beginning in 1983, an even longer fertility section was fielded. In this larger section, additional questions were asked of all respondents regarding sexual activity and contraceptive use. Men provided details about children who resided outside the home, such as how far away they lived and how often the respondent visited with them. Women responded to additional questions about their health care during pregnancy, i.e., if they smoked or drank during pregnancy. Additionally, females were asked how often they visited a doctor for prenatal care. Detailed questions also recorded the time, number, and variety of prenatal procedures such as sonograms, ultrasounds, and amniocentesis that were performed. This expanded fertility section asked details about the birth, such as length of hospital stay, child's birth size, and each baby's immunization record. Lastly, in 1983, respondents who were noninterviews in 1982 were administered a fertility supplement that mimicked the retrospective fertility section collected at the 1982 interview.

In 1987 the fertility section began a new pattern. In odd years, such as 1987, 1989, 1991, and so forth, only a sub-section of the fertility questions was fielded. In even years, such as 1988, 1990, 1992, and so on, the full set of fertility questions similar to those asked in 1986 was fielded.

The odd year fertility sections verified information about previously reported children and asked about the current residence of each child. Additionally, respondents were asked if they had given birth to any more children since the last survey. If births had occurred, the name, sex, date of birth, and current living arrangements of the child were recorded.

Since 1986, even year "Fertility" sections have collected detailed information in conjunction with the child assessments and interviews. To provide users with a detailed understanding of the long fertility section, Table 4.15.1 presents a general outline of the major components of this section of the NLSY79 questionnaire. Because there are minor variations on content and universes over time, users are advised to review the questionnaires for the survey years of interest prior to undertaking analyses.

Table 4.15.1 Questions Asked of Respondents in Long Fertility Section during Even Numbered Survey Years

<table>
<tr><th colspan="2">All Respondents</th></tr>
<tr><td>Validate known biological children (name, birthdate, sex)</td><td>Validate known nonbiological children (name, birthdate, sex)</td></tr>
<tr><td>Current residence information for each biological child</td><td>Number of additional children respondent expects</td></tr>
<tr><td rowspan="2">For each biological child not residing in household ask:
How far does child live from respondent?
How often do you see the child?</td><td>Expected time to arrival or interval of next child</td></tr>
<tr><td>Birth control methods used by respondent</td></tr>
<tr><th colspan="2">Male Respondents</th></tr>
<tr><td rowspan="2">For each child in household ask:
Does other biological parent live in household?
How often does child see biological parent?
Wantedness of most recent child</td><td>Had any children since last interview?</td></tr>
<tr><td>Number of children, and vital statistics</td></tr>
<tr><th colspan="2">Female Respondents</th></tr>
<tr><td>Have you been pregnant since last interview?</td><td rowspan="8">For each pregnancy ending in live birth:
Prenatal doctor visits
Alcohol/cigarette/drug use during pregnancy
Other prenatal behaviors (vitamin intake, salt intake, etc.)
Amniocentesis, ultrasound performed
Was child born early or late?
Cesarean birth
Weight gain during pregnancy
Child's birth size
Length of hospital stay
Well baby/sick baby health care in first year
Was child breast fed?
Other infant feeding practices</td></tr>
<tr><td>When did pregnancy begin, end?</td></tr>
<tr><td>Result of pregnancy (birth, miscarriage, etc.)</td></tr>
<tr><td>Did respondent want to become pregnant?</td></tr>
<tr><td>Confidential abortion card</td></tr>
<tr><td>For each child in household ask:
Does biological father live in household?
How often does child see biological father?</td></tr>
</table>

In 1984, the NLSY79 began collecting information on abortions via a self-reported confidential card. This method of collecting sensitive information significantly improved the reporting of this type of pregnancy outcome. In 2002, these questions were added to the survey itself and the interviewer, insuring privacy, allowed the respondent to type their response directly into the computer. For an evaluation of the abortion information, users should consult Mott (1985).

> ***User Notes:*** Researchers constructing pregnancy histories should understand a subtle change that began with the 1992 survey. Prior to 1992, the questionnaire asked female respondents to report about pregnancy episodes since the last fertility questions were asked (usually two years earlier). Beginning in 1992, the questionnaire asked respondents detailed questions about pregnancies which ended in a live birth only. While the total number of pregnancies can be determined, distinctions between miscarriages and stillbirths are not made. In addition, while dates of all abortions are collected via the confidential card, only the end date of the first non-live birth pregnancy is collected in the fertility section proper. The outcome of this first non-live birth pregnancy is not asked and thus could either be a stillbirth, miscarriage, or abortion.

Questions on nonbiological children were first asked in 1982, were repeated in 1984 and 1985, and have been regularly included in all even year surveys since 1986. With some variations between survey years, researchers can identify whether a child is step or adopted, whether they are deceased, the gender and birth date of each child, and the child's usual place of residence. A detailed written and statistical description of these data can be found in Center for Human Resource Research (1991).

Fertility History

Researchers can create fertility event histories in a number of ways. One method is to extract the variables from each year's survey data which record when each child was born. However, NLSY79 data show that this is not an accurate method for creating an event history. In each survey, respondents are asked to correct information in the fertility roster. (Prior to 1993, this was the *Children's Record Form* or *CRF*. Beginning in 1993, this is the BIO/NBIO Child Roster). Each year, numerous changes are made. For example, in the 1994 survey, parents changed some portion of the birth record for 548 children. While this number appears high, the vast majority of changes are to the spelling of children's names.

Because the raw recorded data on dates of birth, gender, and status (adopted, deceased) entered on the *Children's Record Form* (CRF) are subject to interviewer as well as respondent error, NLSY79 staff created a fertility event history beginning in 1982. This was done to aid users and, at the same time, evaluate the quality of the NLSY79 fertility data. This series, found in the "Fertility and Relationship History/Created" area of interest, lists a number of variables including the birth day, month, and year of

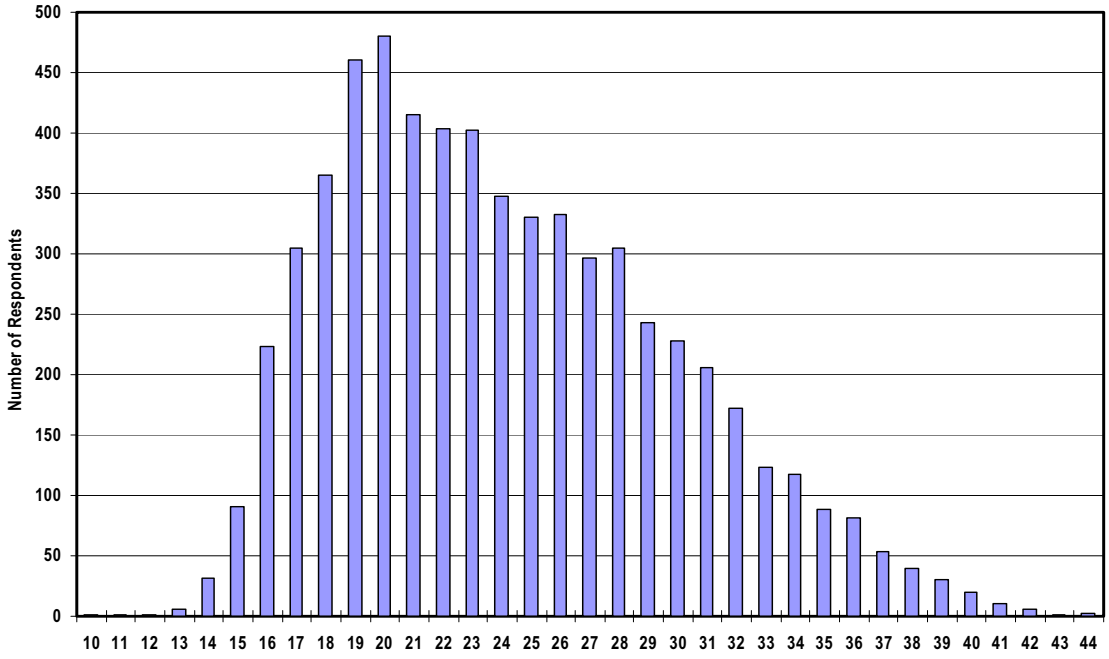
every child born to NLSY79 respondents; numbers and outcomes of pregnancies; ages of respondents at the birth of selected children; dates of death for children who have died; and usual residence of children.

Users should understand that the "Fertility and Relationship History/Created" area of interest has been part of the NLSY79 data set for many years and consists of edited and constructed variables that incorporate the results of a significant cleaning and editing process begun in the early 1980s. This effort began as part of an evaluation of the retrospective fertility data collection in 1982/1983 in comparison to base year and updated collections that took place in 1979, 1980, and 1981. Additional evaluations have been conducted periodically since then. For further information on the quality of NLSY79 fertility data, users should see Mott et al. (1983) and Mott (1985, 1998). A complete description of the contents of the "Fertility and Relationship History/Created" area of interest is provided in Appendix 5 of the *NLSY79 Codebook Supplement* and also describes how the data were checked, lists research reports that investigate the quality of the data, and explains special coding and edit flags.

Age at First Birth

Beginning in 1982, every NLSY79 data release has included a created variable that tracks the age of respondents when they first give birth. The graph of age at first birth as of the 2002 survey is shown in Figure 4.15.1. Readers can also find created variables in the "Fertility and Relationship History" area of interest that track how old the respondent was when the second and third births occurred.

Figure 4.15.1 Age at First Birth for NLSY79 Respondents as of the 2002 Interview



Note: Graph created from 2002 variable R76880.00.

Fertility Expectations and Desires

The fertility section provides researchers with an opportunity to examine whether expectations about the future compare accurately with what actually happens in respondents' lives. In 1979 and 1982, respondents were asked how many children they desired.

In 1979, 1982, 1983, 1984, 1985, 1986, and every even year since 1986, respondents have also reported on the number of children they actually expect to have. Table 4.15.2 compares the number of children desired by the youth at the time the surveys began in 1979 with the number of children born to each respondent by 2002. The table suggests that typical respondents have had fewer children by 2002 than they desired when they were ages 14–21.

Table 4.15.2 Number of Children Born to NLSY79 Respondents by 2002 vs. Number of Children Desired in 1979

Number of Children Desired (in 1979)	Number of Children Born (as of 2002)								
	0	1	2	3	4	5	6	7	8 & up
0	176	112	155	71	29	11	4	1	0
1	86	117	171	80	36	11	5	2	4
2	638	627	1212	642	261	88	32	12	7
3	309	230	489	325	109	38	13	5	2
4	189	173	302	212	112	30	16	10	9
5	44	34	61	56	25	11	2	1	1
6	22	19	42	35	15	8	2	0	1
7	6	5	10	5	10	1	0	0	0
8 & up	15	14	24	21	10	2	2	0	1

Note: Number of desired children is found in R00132., while the number of children ever born as of the 2002 interview is found in R76877.

The difference between actual number of children and the number desired is quantified in Table 4.15.3. This table shows that by 2002, 25.5 percent of the respondents had matched the number of children with their desired total. At the same time, 25.7 percent had more children than originally desired while 48.8 percent had fewer children than they would have liked.

Researchers should note that while NLSY79 respondents are past their peak fertility years, upcoming surveys will record the birth of additional children and thus will likely alter these comparisons slightly.

Table 4.15.3 Difference between Number of Children Born to NLSY79 Respondents by 2002 vs. Number of Children Desired in 1979

Difference between Desired and Actual	# of Respondents	Percent
More Children Than Desired		
+8	4	0.1%
+7	4	0.1%
+6	12	0.2%
+5	32	0.4%
+4	82	1.1%
+3	220	2.9%
+2	551	7.2%
+1	1066	13.9%
Exact Match		
0	1956	25.5%
Fewer Children Than Desired		
-1	1447	18.9%
-2	1244	16.2%
-3	590	7.7%
-4	280	3.7%
-5	94	1.2%
-6	51	0.7%
-7	20	0.3%
-8	15	0.2%

Note: Derived by taking the difference of number of desired children (R00132.) and number of children ever born as of the 2002 interview (R7687700.).

Fertility and Relationship History

The 2000 release of the NLSY79 data introduced a new series of constructed variables for each survey year that provide information about the respondent's relationship status. All surveys were examined to match names of spouses and/or partners for the entire administration of the NLSY79 from 1979 to 2002. The first variable provides information about the respondent's total number of spouses and/or partners since 1979 and can range from 0 to 9. The percentage of respondents who have never reported having a spouse or partner can be found in Table 4.15.4.

Second, a unique code is assigned to each new spouse/partner at the interview date. If the same spouse or partner resides with the respondent during the next survey round, the spouse or partner code remains the same. If the respondent has a new spouse or partner, the next available number is given to that person. If in a later survey round the respondent is reunited with a previous spouse or partner, the number of spouse/partners is not increased, and the code for that year reflects that spouse/partner's original number .

Table 4.15.4 Percentage of Respondents Who Have Never Reported Having a Spouse or Partner

Year	Percentage	Year	Percentage
1979	88.2	1989	26.0
1980	82.1	1990	23.2
1981	74.9	1991	22.3
1982	67.0	1992	20.2
1983	59.0	1993	18.9
1984	52.2	1994	17.6
1985	48.0	1996	15.9
1986	37.7	1998	14.9
1987	35.5	2000	13.3
1988	29.9	2002[1]	

[1]Data for 2002 have been collected but processing was not complete at the printing of this guide. These numbers will be updated in the next edition.

The second created variable reveals whether the person living with the respondent is a spouse, coded 1, or a partner, coded 33. In some instances, the exact relationship is indeterminate in a given round; in these cases, a code of 36 is used. If no spouse or partner is present at a given survey point, but the respondent has reported a spouse/partner in the past, their relationship code will be zero. Respondents with no known spouses/partners receive a code of –999.

There is no guarantee that the same individual(s) were present between survey rounds or that all partners are accounted for, as a spouse or partner may have appeared between survey rounds but not have been present at any survey point. Early examination suggests that this applies to only a modest proportion of cases. In some instances, identification of spouses who only were present between rounds may be possible by using the NLSY79 marriage history, as well as the marriage transition information available at each survey point.

Survey Instruments and Documentation: Information is found in the "Fertility" section of each questionnaire. For additional details on the edited and cleaned fertility data found in area of interest "Fertility and Relationship History/Created," see Appendix 5 in the *NLSY79 Codebook Supplement*.

Data Files: Raw unedited data on fertility, pregnancy, sexual activity, and contraception can be found in areas of interest "Children," "Child Record Form/Nonbiological," "Birth Record," and "Birth Record xxxx." Area of interest "Fertility and Relationship History/Created" contains edited and created variables on fertility, pregnancy, and marriage.

Related Topics: See the "Sexual Activity & Contraception" and "Childcare" sections of this guide. For information on nonbiological children, see the "Household Composition" or "Gender" sections of this guide and areas of interest "Child Record Form/Nonbiological" and "Birth Record xxxx."

Comparison to Other NLS Surveys: Information on fertility and on the status of children has been regularly collected from the NLSY97 and the Original Cohorts. Data include number of children, dates of birth, gender, and life status. Refer to the *NLS Handbook* or each cohort's *User's Guide* for exact survey years and the types of information available.

References

Mott, Frank L., Paula Baker, R. Jean Haurin, and William Marsiglio, "Fertility Related Data in the 1982 National Longitudinal Survey of Work Experience of Youth: An Evaluation of Data Quality and Preliminary Analytical Results." Columbus, OH: CHRR, The Ohio State University, 1983.

Mott, Frank L. "Evaluation of Fertility Data and Preliminary Analytical Results from the 1983 (Round 5) Survey of the National Longitudinal Surveys of Work Experience of Youth." Columbus, OH: CHRR, The Ohio State University, 1985.

Mott, Frank L. "Male Data Collection: Inferences from the National Longitudinal Surveys." Columbus, OH: CHRR, The Ohio State University, 1998.

NLSY79 Children

Maternal prenatal care information and health-related characteristics are also provided on the NLSY79 Child and Young Adult file and are linked to individual children. On this data file, information derived directly from the mother in the fertility section of the main NLSY79 youth questionnaire is linked appropriately to individual biological children. This information includes dates of birth of children, postnatal care, infant health care, and childcare information.

For children age 15 and older, the young adults, a fertility section is administered as part of the CAPI questionnaire. The fertility section of the young adult questionnaire differs from the main youth questionnaire in that no information is collected about non-biological children. The 1994 interview was

the first year of data collection for the young adult CAPI survey. At that time, a complete fertility record was collected for all young adult respondents. Since 1994, the fertility section included two paths for collecting information. Previously interviewed young adults were asked to verify and update their fertility information, as is done for main youth respondents. Respondents who were young adults for the first time in a given survey year had their complete fertility record collected. The respondent identifies each child born and answers questions regarding the child's residence and contact with each parent. Female respondents are asked about wantedness, prenatal behaviors, birth weight and length, medical visits during the first year due to sickness or injury, well baby care, health insurance, and feeding for either all pregnancies or pregnancies since the last interview. Male respondents are asked wantedness and health insurance questions for either all children or children born since the last interview. All respondents are asked about how many children they expect to have. In addition to these raw data items, the data file contains a constructed variable for the age of the young adult at the birth of his/her first child.

Young adults also answered questions on sexual activity, pregnancy, and contraception. For additional information, users should consult the *NLSY79 Child & Young Adult Data Users Guide*.

Survey Instruments: Prenatal, postnatal, and infant health care data are collected in the "Fertility" sections of the main youth questionnaires. Information about the children of young adults is gathered in the "Fertility" section of the young adult questionnaires, while pregnancy, contraception, and abortion questions are contained in the *Young Adult Self-Report Booklet* in 1994, 1996, 1998, and in the CAPI questionnaire in 2000 and 2002.

Data Files and Documentation: These variables are located in areas of interest "Natal" and "Young Adult Birth Record xxxx." More details are available in the *NLSY79 Child & Young Adult Data Users Guide.*

References

Center for Human Resource Research. "Maternal-Child Health Data From the NLSY: 1988 Tabulations and Summary Discussion," Columbus, OH: CHRR, The Ohio State University, 1991.

Center for Human Resource Research. "NLSY79 Child & Young Adult Data Users Guide," Columbus, OH: CHRR, The Ohio State University, 2002.

4.16 Fringe Benefits

NLSY79

Data on the availability of fringe benefits provided by employers of NLSY79 respondents have been collected during each survey year except 1981. The fringe benefit series was administered, from 1980 to 1992, to those respondents who worked 20 hours or more a week at their current or last job and who were not self-employed in an unincorporated business or enlisted in the military. From 1993 to 2002, those working under 10 hours a week were asked if their employer made available any fringe benefits. Those respondents replying in the affirmative were then asked the detailed fringe benefit series. Fringe benefits questions were asked only about the CPS job from 1979–93; they have been asked about all jobs beginning in 1994. The types of benefits about which information has been gathered vary across the years. Table 4.16.1 summarizes, by survey year, the numbers of employed NLSY79 respondents reporting the availability of each type of benefit. This information is taken from the *Employer Supplement* questions; additional information is available in the CPS section. Further information on work-related benefits can be found in the "Pension Benefits & Pension Plans" section of this guide.

Survey Instruments: The "Current Labor Force Status (CPS)" section of the NLSY79 questionnaires: Section 8 (1979), Section 7 (1980), Section 5 (1982–92), Section 6 (1993), and Section 7 *Employer Supplement* (1994–2002) contain the employer-related fringe benefit series.

Data Files: Fringe benefit variables can be found in "Job Information" and the yearly "Misc. xxxx" areas of interest.

Comparison to Other NLS Surveys: Questions on fringe benefits for the NLSY97 cohort are only asked of respondents who report an employee job lasting at least 13 weeks that ended after the date of their 16th birthday, or who are age 16 and over and report an on-going employee job at which they have worked at least 13 weeks. Information on fringe benefits has been collected for the Mature Women in 1977, 1982, 1987, 1989, and 1995–2001; for the Young Women in 1978 and each survey since 1983; and for the Young Men in 1976 and 1981. The exact categories of benefits for which information was recorded may vary; generally, less information was collected in earlier years. Consult the *NLS Handbook* or the appropriate cohort's *User's Guide* for more information.

> ***User Notes:*** These data do not reflect actual coverage by a specific fringe benefit, but rather a respondent's reported knowledge of whether his/her employer made such a fringe benefit available. The 1991–2002 questions on the availability of sick or vacation leave were designed to collect data on the number of days earned and appear within the survey following the regular fringe benefit series.

Table 4.16.1 Number of Civilian Workers Reporting the Availability of Various Types of Fringe Benefits at Their Current/Last Job: NLSY79 1979–2002

Type of Fringe Benefit	79	80	82	83	84	85	86	87	88	89	90	91	92	93	94	96	98	00	02
Reporting Availability[1]	5047	4132	7652	5869	6560	6492	6735	7014	8131	8126	8015	6214	6147	6592	7164	6990	6772	6132	na[4]
Medical/Surgical/ Hospital Insurance	1893	2305	4124	3757	4347	4380	4704	5141	5704	6052	6009	5181	5135	5056	5195	5286	5309	5278	4927
Life Insurance	1230	1647	2979	2912	3391	3421	3800	4262	4719	5027	5067	4360	4331	4316	4423	4518	4511	4553	4261
Paid Vacation	2190	2664	4494	4205	4740	4716	5040	5456	6023	6229	6312	5308	5227	5096	5264	5238	5207[2]	5160[3]	4639
Sick Days w/ Full Pay						3468	3815	4307	4634	4903	4906	3683	3989	3885	4106	4182	4125[2]	4106	3860
Dental Benefits						2563	2913	3425	3833	4149	4222	3835	3816	3894	4022	4266	4426	4529	4353
Maternity/Paternity Leave						3395	3695	4101	4284	4467	4413	3755	3719	4057	4106	4288	4294	4196	3915
Disability Insurance									4748										
Retirement Plan (Not Social Security)									3933	4219	4345	3901	3949	4000	4143	4345	4493	4576	4370
Stock Options									1848										
Profit Sharing									2029	2214	2208	1956	2019	1949	1912	1905	1822	1759	1586
Training/Educational Opportunities									3208	3567	3775	3307	3306	3308	3281	3419	3469	3501	3274
Company-Provided or Subsidized Childcare									342	430	509	533	526	509	527	582	513	566	522
Company-Paid or Subsidized Meals									1016	1259	1301								
Company-Provided or Subsidized Transportation									932										
Company-Provided or Subsidized Housing									228										
Flexible Hours or Work Schedule										3846	3878	3249	3218	3264	3355	3568	3560	3535	3254
Company-Provided or Subsidized Parking										4337	5003								
Employee Discounts										3631	3709								

Note: Question formats for the fringe benefits series have changed over time, so numbers may not be strictly comparable from year to year. These data are from the *Employer Supplements*; other fringe benefit information is available in the CPS section.

[1] The eligible universe for the fringe benefit series during all surveys except 1979, 1993, 1994, 1996, 1998, 2000, and 2002 is those respondents who worked 20 or more hours a week at their current or last job. Excluded are self-employed respondents working in an unincorporated business and those enlisted in the military.

[2] These include those with combined sick/vacation days and with 995 responses to sick days questions (meaning combined sick/vacation days).

[3] Includes paid vacation days and combined sick/vacation days.

[4] This question was asked in a different fashion for 2002 and is not comparable to previous rounds.

NLSY79 Children

Data have been collected during each young adult survey on the availability of fringe benefits provided by employers of NLSY79 children aged 15 and older. Through 1998, the fringe benefit series was administered to all respondents who reported working 20 or more hours a week at their current or last job.

Respondents working less than 20 hours were asked whether they received any fringe benefits from their employers; if so, they were also asked the detailed fringe benefit series of questions. The types of fringe benefits about which information was gathered closely resemble those in the main NLSY79. Beginning in 2000, the fringe benefits series is asked only for the current or most recent primary employer.

Survey Instruments: The fringe benefit series can be found in the *Employer Supplement* sections of the *NLSY79 Young Adult Questionnaires*.

4.17 Gender

NLSY79

Variables available within the main NLSY79 data set provide information on the sex of each respondent, their children, and members of their household. Information on the sex of the respondent can be found in (1) a single 1979 variable, 'Sex of R' (R02148.), and (2) a set of yearly interviewer remarks variables, 'Int Remarks - Sex of R.' The 1979 'Sex of R' variable (R02148.) is derived from R01736., 'Sample Identification Code,' a variable which defines each respondent's membership in one of the subsamples that comprise the NLSY79 (e.g., "cross-sectional male, non-black/non-Hispanic poor," "supplemental female black," etc.). Subsample identification was based on information gathered during the 1978 household screening.

During screening, sex was determined by observation and asked directly of respondents only if it was "not obvious" to the interviewer. The respondent's sex, coded for R01736. and subsequently for R02148., has been changed for 45 cases; see the "User Notes" section below for a list of the identification numbers of these respondents and a short description of the changes. The variable series 'Int Remarks - Sex of R,' provides interviewers' observations of the sex of the respondent for the 1982 survey year and each following year except the 1987 telephone interview. These observations are subject to a small degree of error from erroneous interviewer observation and/or recoding and data entry error. Therefore, when using this series of variables, a small number of respondents may appear to "change" sex across surveys.

Information on the sex of the respondent's biological children is provided in both edited form (in area of interest "Fertility and Relationship History/Created") and unedited form (in areas of interest "Birth Record" and "Child Record Form/Biological"). Edited variables, e.g., 'Sex of 1st Child,' have been created annually since 1982. For these variables, raw data from various questions related to the child's sex are combined, cleaned, and checked for consistency during creation of the Supplemental Fertility File (see area of interest "Fertility and Relationship History/Created" and Appendix 5 of the *NLSY79 Codebook Supplement*). The raw data upon which these edited variables are based are also available. From 1982 to 1985, sex of children was collected separately for male and female respondents, e.g. 'Female - Sex of 1st Child.' In 1983 and 1984, sex of the children of all respondents was also included on the *Information Sheet.* (See area of interest "Last Interview Information" for these survey years.) From 1985 to 1992, sex of children was collected separately for biological (e.g., 'Sex of Biological 1st Child') and non-biological children (e.g., 'Sex of Non-Biological 1st Child'), and listed on separate sections of the *Children's Record Form (CRF).* Information on non-biological children, such as sex of the child, is only collected in even-numbered years after 1985, e.g., in 1986, 1988, etc., and can be found in area of interest "Child Record Form/Nonbiological."

Finally, for all survey years, the sex of all individuals in the household was collected in the yearly household interview (e.g., 'Household Record - Sex Member #1'). Sex of household members was also gathered in the 1978 *Household Screener* (e.g., 'Household Screener: Family Member #1 – Sex').

User Notes: Users should be aware that the observations of gender included in the interviewer's remarks tend to be subject to a small degree of error, as they are recorded and entered as new variables each year. Likewise, a small percentage of gender codes vary for NLSY79 children on the *CRF* from year to year. Error levels are higher for information collected from male respondents.

On March 1, 1986, 'Sex of R' was changed for 42 cases as a result of inconsistencies generated from interviewer checks for respondent's sex in the fertility section of the 1982 survey instrument; three additional cases were changed shortly thereafter. Each of these cases were verified by NORC for accuracy. 'Sex of R' (R02148.) for the following identification codes (R00001.) was changed:

From male to female: 712, 1306, 1933, 2212, 2286, 2287, 2433, 3960, 4157, 6102, 7571, 7645, 7890, 8542, 8690, 8826, 9150, 9713, 10511, and 12676.

From female to male: 1663, 3388, 3582, 3583, 3865, 4524, 4579, 4917, 5929, 6198, 6360, 6466, 6840, 7620, 7624, 8321, 8543, 8596, 9166, 9555, 10347, 11110, 11114, 12257, and 12387.

Survey Instruments & Documentation: A copy of the 1978 *Household Screener* used to collect information on sex of the respondent and other household members can be found in the *Household Screener and Interviewer's Reference Manual* (NORC 1978). Interviewer observations are recorded in the final section of each questionnaire, entitled "Interviewer's Remarks." Household members' sex is collected during the administration of the *Household Interview Forms*. A copy of the *Information Sheet,* containing sex of respondents' children, can be found near the beginning of the yearly *Question by Question Specifications.* The *CRF* is a separate child "inventory" referenced in the "Fertility" section of the questionnaire; sample copies can be found in the *Question by Question Specifications.* Finally, a general description of the derivation of the Supplemental Fertility File variables, such as sex of children, appears in Appendix 5 in the *NLSY79 Codebook Supplement.*

Data Files: All sex variables discussed above are located on the main NLSY79 data set. 'Sex of R' (R02148.) and the 'Sample Identification Code' (R01736.) can be found in the "Common" area of interest, while the interviewer remarks variables are located in "Interviewer Remarks." The Supplemental Fertility File variables have been placed in "Fertility and Relationship History/Created." Children's genders, listed separately for biological and non-biological children on the *CRF,* are in area of interest "Child Record Form/Biological" and "Child Record Form/Nonbiological," respectively. Variables

collected during the household interview can be found in "Household Record," and variables from the *Household Screener* are housed in "Misc. 1979."

Comparison to Other NLS Surveys: Information on gender is available for the NLSY97. Gender is implicit by membership in the Original Cohorts.

NLSY79 Children

The created 'Sex of Child' variable includes a sex code for all biological children born to female members of the NLSY79, regardless of whether the child was assessed. Data are derived mainly from the NLSY79 fertility file and include a number of hand-edits based on information gathered during the child interviews. Year-specific gender variables based on the created 'Sex of Child' variable are available. A number of reports evaluating the quality of this information have been prepared. They are listed in the references part of this section.

Survey Instruments & Documentation: Appendix 5 within the *NLSY79 Codebook Supplement* discusses the NLSY79 Supplemental Fertility File.

Data Files: The child's sex variable is placed in the "Child Background" area of interest on the child file.

References

NORC. *1978 Household Screener and Interviewer's Reference Manual.* Chicago: NORC, University of Chicago, 1978.

Haurin, R. Jean. "Marriage and Childbearing of Adults: An Evaluation of the 1992 National Longitudinal Survey of Youth." Columbus, OH: CHRR, The Ohio State University, 1994.

Mott, Frank L. "Fertility-Related Data in the 1982 National Longitudinal Survey of Work Experience of Youth: An Evaluation of Data Quality and Some Preliminary Analytical Results." Columbus, OH: CHRR, The Ohio State University, 1983.

Mott, Frank L.; Baker, Paula C.; Haurin, R. Jean; Marsiglio, William; and Weaver, David. "Evaluation of Fertility Data and Preliminary Analytical Results from the 1983 (5th Round) National Longitudinal Survey of Work Experience of Youth." Columbus, OH: CHRR, The Ohio State University, 1985.

Center for Human Resource Research. "Appendix 5: Supplemental Fertility File Variables." *NLSY79 Codebook Supplement*. Columbus, OH: CHRR, The Ohio State University.

4.18 Geographic Residence & Environmental Characteristics

NLSY79

Geographic data for NLSY79 respondents fall into two categories: information on the main public file and more detailed information released on a restricted-access geocode CD. Researchers interested in obtaining this geocode CD must submit a short geocode application to BLS and agree to meet certain security requirements. Researchers can request more information about this process by calling BLS at (202) 691-7410 or sending e-mail to NLS_Info@bls.gov. This section first describes the main file variables and then discusses the data available in the geocode file. Table 4.18.1 lists NLSY79 geographic variables along with their areas of interest; variables in the "Geocode xxxx" area are located on the restricted-use CD and all other variables are available on the main public file.

Main file geographic variables

Variables created for each survey year include the following (see the geocode discussion below for more information on variable creation procedures):

- Region of residence at birth, age 14, and survey dates (Northeast, North Central, South, or West)
- Information on whether the current residence is in an urban or rural county
- Information on whether the current residence is in a Metropolitan Statistical Area (MSA), the central city of an MSA, or outside of an MSA
- Beginning in 1988, whether the current residence is in the United States
- Unemployment rate for the respondent's local labor market

Related NLSY79 main file variables discussed in the "Household Composition" and "Family Background" sections of this guide include (1) type of residence or dwelling unit at the time of interview (e.g., dorm, hospital, jail, orphanage, own home, etc.) and (2) childhood living arrangements of NLSY79 respondents from birth to age 18, including not only information on persons with whom the respondent lived (e.g., biological versus adoptive and step-parents) but also on institutions such as children's homes, group care homes, or detention centers/jails/prisons in which he or she may have resided.

> ***User Notes:*** The "Misc. xxxx" areas of interest contain a set of variables titled 'Does R Live on a Farm or in a Rural Area?' The interviewer answers this question based on observation when at the respondent's permanent residence; if the interview takes place elsewhere, the interviewer asks the respondent about the place of residence. There are no consistent criteria for the definition of non-farm property as rural. These variables should **not** be considered a replacement for the created *KEY* variable, 'Current Residence Urban/Rural?' Using the *County & City Data Book* or geocode software, the *KEY* variable is based on proportions of urban and rural populations in the county of residence.

Table 4.18.1 Select Residence Variables by Survey Year & Area of Interest: NLSY79 Main & Geocode Files

Variables	Survey Year(s)	Area of Interest	Documentation
Residence at Birth			
Country - U.S. or Other Country	1979, 1983	Geocode 1979	—
Country - Actual Other Country	1979	Geocode 1979	Attachment 101
County	1979	Geocode 1979	Attachment 102
State	1979	Geocode 1979	Attachment 102
South/Non-South	1979	Family Background	Attachment 100
Residence at Age 14			
Country - U.S. or Other Country	1979	Geocode 1979	—
Country - Actual Other Country	1979	Geocode 1979	Attachment 101
County	1979	Geocode 1979	Attachment 102
State	1979	Geocode 1979	Attachment 102
South/Non-South	1979	Family Background	Attachment 100
Area of Residence - Urban/Rural	1979	Family Background	*User's Guide* & App. 6
Present Residence			
Lived in Since Birth	1979	Family Background	—
Year of Move to	1979	Family Background	—
Most Recent Residence			
5th-1st Country/County/State Since Jan. 1978	1979	Geocode 1979	Attachments 101, 102
Month/Year of Move(s)	1979	Family Background	—
5th-1st Country/County/State Since Last Int.	1980	Geocode 1980	Attachments 101, 102
Month/Year of Move(s)	1980	Family Background	Attachment 102
9th-1st Country/County/State Since 1980 Int.	1982	Geocode 1982	Attachments 101, 102
Month/Year of Move(s)	1982	Family Background	—
Current Residence			
Region	1979–2002	Key Variables	Attachment 100
Urban/Rural	1979–2002	Key Variables	Att. 6 & *User's Guide*
SMSA/Central City	1979–2002	Key Variables	Att. 6 & *User's Guide*
In U.S.	1988–2002	Misc. xxxx	*NLSY79 User's Guide*
County	1979–2002	Geocode xxxx	Attachment 102
State	1979–2002	Geocode xxxx	Attachment 102
SMSA	1979–2002	Geocode xxxx	Attachment 104
PMSA	1983–2002	Geocode xxxx	Attachment 104
MSA	1983–2002	Geocode xxxx	Attachment 104
CMSA	1983–2002	Geocode xxxx	Attachment 104
MSA/CMSA/NECMA	1988–2002	Geocode xxxx	Appendix 10

Geocode file variables

Based on address information reported by respondents at the time of the interview, survey staff identify the state, county, and metropolitan statistical area of residence for each respondent. This information is the basis for the geographic residence variables in the main data set and on the geocode CD. Similar information is provided for the respondent's residence at birth and at age 14. Additionally, the current residence variables are merged with information from several other data files, namely the *City Reference File* (Census 1973, 1982, 1983, 1987, 1992) and the *County & City Data Book* (Census 1972, 1977, 1983, 1988, 1994), to provide detailed information on the environmental characteristics of the state, county, and metropolitan statistical areas in which each NLSY79 respondent resides.

Geographic Residence: Present within the NLSY79 geocode data file is information that specifies the actual country, state, county, and geographic region of each respondent's residence at the time of interview, location of birth and residence at the age of 14. In addition, detailed geographic mobility information was collected during the 1979–80, 1982, 2000, and 2002 surveys; data were gathered on the country/county/state and timing of up to five residential moves since January 1978 or since the last interview. Beginning in 2000 only significant geographical moves were recorded.

Variables created for each survey year include the following:

- Region of current residence (Northeast, North Central, South, or West)
- Information on whether the current residence is in an urban or rural county. Through 1996, this series was based on the respondent's state and county of residence and the "% urban population" data from the *County & City Data Book*. Since 1998, this item is based on proportion of urban population data contained in the geocoding database currently used by CHRR. For further information, see the *Geocode Codebook Supplement*.
- Information on whether current residence is in an SMSA (Standard Metropolitan Statistical Area) or central city. Based upon zip code, state, and county matches with metropolitan statistical designations for place of residence, a determination is made (if possible) as to the location of the respondent within or outside of a metropolitan statistical area.
- The specific county and state (both edited) of residence at the time of interview, coded with Federal Information Processing Standards *(FIPS)* codes.
- The specific metropolitan area of residence at the time of interview. As applicable, information may be included for the following types of metropolitan areas:

SMSA	Standard Metropolitan Statistical Area
MSA	Metropolitan Statistical Area
CMSA	Consolidated Metropolitan Statistical Area
PMSA	Primary Metropolitan Statistical Area
NECMA	New England County Metropolitan Area

Available since 1988 is the set of variables titled 'Current Residence in U.S.?', based on county, state, and/or country/territory of residence. Finally, for select survey years geocode information is available on the location of respondents' jobs, the location of colleges attended, and the point of discharge from military service.

Environmental Characteristics: The types of information depicted in the table below, drawn from the *County & City Data Book* files (1972, 1977, 1983, 1988, 1994), have been added to the NLSY79 "Geocode" areas of interest. Variables are available for both the county and SMSA of current residence for the 1979–82 survey years and for the county level only for later years. Users will note that some of these variables are available only for the 1979–82 surveys; the 1983–2002 geocode files contain a reduced set of variables.

Table 4.18.2 Representative Types of County/SMSA Environmental Characteristic Data: NLSY79 Geocode CD

Population sizes	Median family and per capita income
Percent of population that is:	Recipients of and payments from:
• urban	• AFDC
• black	• SSI
• female	• Social Security
• under 5 years old	Labor force statistics:
• 65+ years old	• total labor force
Birth/death/marriage/divorce rates	• civilian labor force
Physician and hospital bed rates	• number of females in the civilian labor force
Crime rates	• civilians unemployed versus employed
Poverty level data	• percent employed in various industries
Educational attainment levels	Unemployment rate for labor market of residence

Two sets of variables provide information on the unemployment rate of each respondent's labor market of current residence: (1) a yearly 'Unemployment Rate for Labor Market of Current Residence' and (2) a yearly 'Continuous Unemployment Rate for Labor Market of Current Residence.' Information on these variables follows and can also be found in Appendix 7 in the *NLSY79 Codebook Supplement*.

The source of the 'Unemployment Rate' variables is the May issue of the Bureau of Labor Statistics' *Employment and Earnings* for the year following the survey year. Figures from March of each survey year are used. This table supplies unemployment rates for each state and for selected metropolitan statistical areas within each state. Respondents who are residing within one of these metropolitan statistical areas are assigned the appropriate unemployment rate. For those residing outside of these areas, a "balance of state" unemployment figure is computed (using state total figures for actual size of civilian work force and actual number employed and subtracting the population living in metropolitan areas [see Appendix 7 of the *NLSY79 Codebook Supplement*]) and assigned based upon state of residence.

The first created variable is 'Continuous Unemployment Rate for Labor Market of Current Residence,' which includes the actual unemployment rate for each specific labor market (noncollapsed). It is released only with the NLSY79 geocode data file. The second variable, 'Unemployment Rate for Labor Market of Current Residence,' collapses the first variable into six categories and is released with the main data set.

Other Geographic Variables: Additional geographic information, available only for use at the Center for Human Resource Research, includes the latitude and longitude of each respondent's residence. This information is used as input to computer mapping programs and its usage requires special clearance from the Bureau of Labor Statistics. Similarly, users may obtain special permission to use zip code and Census tract data available at the BLS offices in Washington, DC.

An additional set of geographic mobility measures is available on the Women's Support Network File for NLSY79 females interviewed during 1983–85. Three "across-wave" files present on this supplemental data set compare the extent of matching between female respondents' own addresses and telephone numbers across the following three survey periods: 1983 to 1984, 1983 to 1985, and 1984 to 1985. The following types of measures are available: (1) extent of zip code match (all 5-digit match, first 3-digit match, same state, same subregion, same region, different region); (2) extent of telephone number match (same phone number, same exchange, same area code, same state, same subregion, same region, different region); (3) extent of city/state match (same city, same state, same subregion, same region, different region); and (4) distance of move or separation (same 5-digit zip code, within 50 miles, 51–150 miles, 151–300 miles, 301–600 miles, 601–1000miles, 1001–1400 miles, 1401–1800 miles, more than 1800 miles). Those interested in this separate data set should contact User Services to get the special documentation available for these files, as well as ordering information.

Survey Instruments: Data on residence at birth and at age 14, as well as the 1979–82 present/most recent residence series, were collected using questions found within Section 1 ("Family Background" and "On Family") of the 1979, 1980, and 1982 questionnaires. All other variables are created from or determined by the geographic information provided by each NLSY79 respondent within the locator section of the questionnaire and/or from the interviewing *Face Sheet* or internal NORC locating files.

Data Files: Residence variables discussed above can be found within the "Family Background," "Key Variables," "Geocode xxxx," or "Misc. xxxx" areas of interest; the first table above specifies the particular areas of interest for each variable. The level of detail available determines, in general, whether a variable is placed within the restricted release "Geocode xxxx" files or is present within one of the areas of interest on the main data set. Thus, general country level information, e.g., whether the respondent resided at various points in time within or outside of the United States, is available to all users with no restriction, while the specific county or SMSA in which s/he resided at a specific interview point is present only within the

restricted release geocode data files. All environmental variables, including the continuous version of the 'Unemployment Rate for the Labor Market of Current Residence,' are present on the restricted release "Geocode xxxx" areas of interest on the geocode CD. The collapsed version of the labor market unemployment rate variable is located in the "Key Variables" area of interest on the main data file.

Documentation: Several attachments and appendices in the *NLSY79 Codebook Supplement* and/or the *NLSY79 Geocode Codebook Supplement* offer creation procedure information and coding systems for the geographic residence variables. These appendices and attachments are described in detail in section 3.3 of this guide. The following are relevant to the geocode variables:

- Appendix 6 [SMSA/central city - urban/rural]
- Appendix 7 [Unemployment rates]
- Appendix 10 [Geocode creation procedures]
- Attachment 100 [Geographic regions]
- Attachment 101 [Foreign countries]
- Attachment 102 [States - counties]
- Attachment 104 [Metropolitan areas]
- Attachment 105 [Addendum to FICE codes]

User Notes: The geocoding of respondents' geographic location before 1993 required extensive hand-editing and is not 100 percent accurate. The most common error is the potential assignment of a respondent to an adjacent county of residence. Data on addresses, zip codes, and phone numbers are used to clean the geocodes. CHRR believes that the post-1988 use of telephone number information improved data quality. A brief discussion below provides more information on both the hand-edits performed each year and the created variable that indicates the extent of hand-editing required for each case; see Appendix 10 in the *Geocode Codebook Supplement* for more details.

Additional important information on geographic variables is contained on the following pages.

Attaching Other Variables to Existing Geocode Records. The state and county codes used in constructing the geocode files are the Federal Information Processing Standards (FIPS) used in the *County & City Data Book* publications and data files. Users may attach additional county and metropolitan statistical area-level data from a variety of sources by simply merging information from the desired source with the geocode data based upon the state, county, and metropolitan statistical area of residence codes in the geocode file.

Edited versus Unedited Versions of State/County of Residence. For some years (1979–82, 1988–89, 1991–92), two versions of the state and county of residence variables have been included in the "Geocode xxxx" files. The set occurring at the beginning of each file is the edited version, while the variables found near the end of the files for these years are unedited. If the variable has an actual source question number/name, it is the original from NORC. If the source question name says *created*, it is the

edited/created version. Note that the unedited variables are sometimes combined into a single variable, with the state and county code appended to each other. These raw variables are preceded by the word "GEOCODE" in the variable title. The edited residence variables contain the corrections made for erroneous address information and are the ones from which the geocode files themselves are constructed. Users should be aware that the edited version of these variables does not contain data for those respondents who are in the active military forces or who are living abroad or in a U.S. territory. Codes of "-4" appearing in the unedited versions of the state and/or county variables (because foreign country and U.S. territory codes are placed in one field or the other) should not appear in the edited versions of these residence variables.

New Geocode Procedures for Assigning Residence Codes and Hand-Editing Discrepant Cases. During the 1988 hand-editing process, it became evident that the telephone numbers were very accurate, even in cases for which the address information contained discrepancies. Beginning in 1989, the area code and phone exchange were used to assign state and county of residence codes. The state assigned by the area code was then compared to the state assigned on the basis of zip code alone and the state contained in the original NORC respondent file. A "quality of match" variable was computed on the basis of how well these states match. For a more detailed discussion of these new assignment and matching procedures, refer to "Appendix 10: Geocode Documentation" in the *Geocode Codebook Supplement.* This process was used through the 1994 release.

The hand-editing procedure has also been streamlined. In 1989, the first year in which the phone assignment procedure was used, the residence codes assigned on the basis of the area code and exchange were compared to the raw residence variables received from NORC. Those with nonmatching information were identified for individual examination. Ideally, the discrepancies requiring individual examination would be reduced to those cases which are "genuine movers" or which have zip codes covering multiple counties and would require some verification that the correct county was assigned based upon the phone information. The current process for identifying discrepancies and hand-editing is aimed more directly at achieving this objective.

Beginning in 1990, the residence codes assigned based on phone information were compared to the 1989 CHRR-edited residence information to identify cases for individual examination. Because the previous year's edited variables incorporate the corrections that were made in the hand-editing process from earlier years, repeated editing of the same cases across years decreased. Through this process, the discrepancies in residential geocode information were reduced. The number of cases requiring individual examination also decreased and was restricted more closely to the population of "genuine movers" and people with multiple-county zip codes and phone numbers that require verification of county of residence.

The hand-editing process in previous years included not only these genuine movers and multi-county zip code dwellers, but also other cases for which elements of the address are simply in error or incompatible with each other. Some of these cases could potentially require editing for the same errors in more than one year, even if the respondent stayed in one location. Hand-editing procedures were further streamlined, and in some cases automated, to produce the 1992 data.

Beginning in 1996, a new procedure for verifying and assigning correct final geocode information was instituted. This procedure is now performed using specialized address tracking geocode software. The processes are described in Appendix 10 of the *Geocode Codebook Supplement*. It is the belief of CHRR staff members not only that the current procedures are more efficient in identifying true discrepancies and streamlining the hand-editing process, but also that they result in more accurate and consistent assignment of state and county codes in general.

Missing Values, New England Cases, and Mobility. Missing values in location of residence variables and metropolitan statistical area codes are associated with respondents who are in the active military forces or who are living either abroad or in a U.S. territory. Users should be aware that, due to the fact that New England County Metropolitan Area (NECMA) codes are not comparable to metropolitan statistical areas from the remainder of the country, New England cases are eliminated from some of the procedures used to construct the geocode files.

The review and hand-editing process has been periodically revised to improve the accuracy of the data and the efficiency of data production. The potential implications for effects on mobility rates between some years due to these changes have been noted in "Appendix 10: Geocode Documentation" of the *NLSY79 Geocode Codebook Supplement*. Users should read Appendix 10 carefully to gain a better understanding of the issues outlined above and their implications for specific research endeavors.

Comparison to Other NLS Surveys: Data on the respondent's area of residence are available for all cohorts. The NLSY97 main created variables indicate whether the respondent lives in an urban or rural area, whether the respondent lives in a Metropolitan Statistical Area, and in which Census region the respondent resides. More detailed information is available on the restricted-use Geocode CD. Region of residence and geographic mobility of Original Cohort respondents are provided for most survey years. For more complete information, refer to the *NLS Handbook* or the appropriate cohort's *User's Guide*.

References

Borjas, George; Bronars, Stephen; and Trejo, Stephen J. "Self-Selection and Internal Migration in the United States." NLS Discussion Paper 92-14. Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics, 1992.

Falaris, Evanglos. "Migration and Wages of Young Men." *Journal of Human Resources* 23,4 (Fall 1988): 514–34.

Haurin, Donald and Haurin, R. Jean. "Net Migration, Unemployment, and the Business Cycle." *Journal of Regional Science* 28,2 (1988): 239–53.

Odland, John and Bailey, Adrian. "Regional Outmigration Rates and Migration Histories: A Longitudinal Analysis." *Geographical Analysis* 22,2 (April 1990): 158–70.

Wenk, D. and Hardesty, C. "The Effects of Residence, Family Background and Household Structure on the Educational Attainment of Young Adults." In *Investing in People: The Human Capital Needs of Rural America*. L.S. Beaulieu & D. Mulkey, eds. Westview Press, 1991.

NLSY79 Children

Child's Residence: Geographic residence information for those NLSY79 children who resided with their mother can be inferred from the residence data of their mothers. Two sets of variables, 'Residence of Child' (1979–81 and 1983) and 'Usual Residence of Child' (1982, 1984–2002), can be used to determine whether the usual living arrangement of the child was "in the mother's household." Place of birth information (city, county, state) was gathered in 1990 and 1992 for the subset of children assessed in those years; these data are included in the 1979–92 NLSY79 geocode file releases. Place of birth information can also be inferred from the mother's residence information on the child's birth date.

The usual residence of the young adult (that is, in the mother's household, with father, etc.) can be determined either from the young adult survey or from the mother's fertility record. Beginning in 1996, region of residence is also available for the young adults. As part of the 2000 data release, geocode variables for all young adult survey years were created. These variables mirror the geocode variables available in the main NLSY79 data set, including state and county of residence, metropolitan statistical area of residence, environmental characteristics, and codes for colleges attended. Geocode releases of young adult data will continue with each new data release. As with the main geocode CD, researchers interested in using these data must contact BLS to obtain a geocode accessing agreement. To satisfactorily complete the application, users must describe the nature of their research and agree to meet certain security requirements. More information can be obtained from NLS program staff by sending e-mail to NLS_Info@bls.gov or calling (202) 691-7410.

Mother's Residence: Child data users can access, for NLSY79 females, all unrestricted geographic information listed in the first table above. Researchers who satisfactorily complete the geocode accessing agreement process can also link to the more detailed variables on the NLSY79 geocode CD.

Survey Instruments: The place of child's birth question can be found within the "Child Health" section of the 1990 and 1992 *Child Supplement*. See the NLSY79 "Survey Instruments" and "Data Files" sections above for the sources of the mother residence variables.

Data Files & Documentation: Users can access the general geographic residential variables for each NLSY79 mother in the "Family Background," "Key Variables," and "Misc. xxxx" areas of interest in the main file data set. Detailed geographic information (county, state, SMSA of residence) for NLSY79 mothers and the child's place of birth are available only on the geocode CD. Documentation available for these geographic residence variables is discussed in the NLSY79 "Documentation" section above.

4.19 Government Training & Jobs Programs

NLSY79

Extensive information on participation in non-military, government-sponsored jobs and training programs was collected from 1979 through the mid-1980s for NLSY79 respondents. In general, information was gathered on enrollment patterns; program sponsorship; and types of training, supportive services, and job placement services provided. The primary thrust of NLS questions was on whether jobs held by the respondent had been obtained via a program funded by the government. The survey also explored whether training and supportive services had been provided.

Users interested in a full picture of government-sponsored jobs and training variables available for the NLSY79 should refer to the "On Jobs" section of the 1979–87 questionnaires; the accompanying *Employer Supplements*, which collected information on all jobs held by the respondent (including but not limited to government-sponsored jobs); and the 1979–86 "Government Training" sections, which asked those respondents not enrolled in school for information on *other* government training programs in which they had been enrolled and which were not already reported within the "On Jobs" section. Of related interest are the special series of questions administered during the 1981 survey on each respondent's use of time during the past seven days. This supplement included questions on time spent in government training programs, i.e., total hours in past week/per day, time spent studying and traveling to a government training program, and mode of transportation used.

The "On Jobs" section of the 1979–87 questionnaires, in conjunction with the yearly *Employer Supplement*, collected detailed information on all jobs reported by the respondent since January 1978 (for the 1979 survey) or since the last interview (for subsequent surveys). For each job identified as a government job, information was gathered from the respondent on the names of the government-operated job programs (see listing in Table 4.19.1), whether the program was part of a CETA/JTPA or WIN program, the reason the respondent entered this program, the kinds of services provided (job counseling, GED preparation, on-the-job training [OJT], classroom training for basic skills [reading-writing-arithmetic], or occupational skills training), whether the respondent had been placed in either subsidized or unsubsidized employment, the types of supportive services such as childcare or health care provided, and the respondent's attitudes toward the program. The 1979 questionnaire contained a supplementary "On Jobs" section, which collected information on whether respondents age 16 and over had participated in a government-sponsored, in-school, or summer jobs program prior to January 1978. Beginning in 1988, the collection of specific information on government jobs ceased.

Table 4.19.1 Federally Funded Agencies Providing Government Jobs: 1979–87

- Apprenticeship Outreach Program (RTP)
- Comprehensive Employment & Training Act (CETA)
- Job Corps
- Job Opportunities in the Business Sector (JOBS)
- Manpower Development & Training Act (MDTA)
- Neighborhood Youth Corps
- Opportunities Industrialization Centers
- Public Employment Program (PEP)
- Public Service Employment (PSE)
- SER - Jobs for Progress
- Summer Program for Economically Disadvantaged Youth (SPEDY)
- Summer Youth Work Experience Program
- Urban Conservation Corps
- Urban League
- Vocational Rehabilitation
- Work Incentive Program
- Young Adult Conservation Corps
- Youth Community Conservation and Improvement Program (YCCIP)
- Youth Conservation Corps (YCC)
- Youth Employment and Training Program (YETP)
- Youth Incentive Entitlement Pilot Projects (YIEPP)
- Other government-sponsored jobs and training programs

The 1979–86 "Government Training" sections collected two additional sets of information. First, retrospective information on up to five government-sponsored training programs in which respondents were enrolled prior to January 1, 1978, was collected during the 1979 survey. Included are the name of the government program (e.g., MDTA/CETA/JTPA, Job Corps, RTP Apprenticeship Program, Opportunities Industrialization Centers, Jobs for Progress, Urban League, Vocational Rehabilitation), the 3-digit Census occupational training category, whether the respondent completed the training program, and in what year the respondent left the program.

Second, information on up to two government-sponsored training programs in which a respondent was enrolled since 1978 or since the last interview was collected during the 1979–86 interviews. This series of questions was restricted during the 1979–83 interviews to respondents who were not enrolled in regular schooling (grades 1–12). Included is information on the name of the government program; the date participation ended; hours per week/per day of participation; current enrollment status; periods of nonparticipation lasting a week or more; whether the program was part of a CETA, JTPA, or WIN-affiliated program; reasons for entering/leaving each program; types of training services provided (job counseling, GED preparation, classroom training, English as a second language, skills training, etc.);

Census occupational and/or OJT training category; type of subsidized (OJT, work experience, or CETA/PSE) or unsubsidized job placement; types of supportive services received (childcare, transportation, health care, college preparation, etc.); income/rate of pay received during participation; and attitudes toward specific aspects of the training program.

The total number of government-related training questions was reduced beginning with the 1987 survey: A single question in that year asked all respondents whether they had received training or assistance from any (nonspecified) government-sponsored program.

However, government sponsorship of a training program was incorporated within the regularly asked "Other Training" questions beginning in 1988. All respondents continued to be asked for information on multiple training programs in which they were enrolled since the last interview. Questions differentiated between *where* respondents received their training (e.g., through an apprenticeship program, a business school, a vocational institute or vocational rehabilitation center) and *who or what* organization paid for the training program (e.g., self, employer, JTPA, TAA, Job Corps, WIN, the Veteran's Administration, Vocational Rehabilitation, etc.). Information was collected for each training program on dates of participation, total weeks enrolled, whether the respondent completed the program, whether the training was used on their most current job or helped the respondent obtain a different job, hours/week spent in training, and type of training program (occupational skills training, classroom training for basic skills, on-the-job training, job search assistance, or work experience). The 1990–94 surveys added questions on whether the training was promotion-related, either because it was required for a promotion or because it helped the respondent obtain a promotion. The "Training" section of this guide provides a comprehensive discussion of the types of non-governmental training variables present within the NLSY79 data set.

Survey Instruments: Both the main questionnaires and *Employer Supplements (ES)* are sources for the government jobs and training variables. The 1979 employer supplement series of questions was incorporated within the main questionnaire as Section 10 "On Jobs" for the 1979 survey year only. Relevant sections of the other questionnaires are as follows:

Government Training: Section 13 (1979); Section 10 (1980); Section 9 (1981 and 1982); and Section 8 (1983–87).

Government Jobs: Sections 9 and 10 (1979); Section 8/*ES* (1980); Section 7/*ES* (1981 and 1982); Section 6/*ES* (1983–87).

Post-1987 Training: Section 8 (1988–2002).

Questions of related interest on non-government training can be found in the "Other Training" sections of the 1979–87 questionnaires. The 1979 *Employer Flap* and the 1980–87 *Employer Supplements* identify the nature of government-sponsored jobs and contain detailed information on each job.

Data Files: Variables from the "Government Training" sections of the 1979–87 surveys are located in the "Government Training" area of interest on the main NLSY79 data set; government-related training variables for subsequent years are located in "Training." Variables relating to government-sponsored jobs are located in the "Government Jobs" and "Misc. xxxx" areas of interest. Detailed information on each government job, e.g., dates of employment, hourly rate of pay, occupation, and industry, can be found within "Job Information." The "Time Use" area of interest contains the 1981 time use questions. Note that data on government-sponsored jobs for the 1979–87 survey years are also found on the NLSY79 Work History Data File, which includes information on whether any jobs (up to five) held by a respondent since the last interview were government-sponsored jobs.

Documentation: The "NLSY79 Glossary of Terms" (Appendix D of this guide) provides descriptions of some of the locally operated programs and the three federal legislative acts authorizing employment and training funding which were in place during 1979–87. Background information on the development of federally funded employment and training programs and descriptions of the various government-sponsored programs and service providers in existence in the late 1970s and early 1980s can be found in the various Center for Human Resource Research reports listed below.

> ***User Notes:*** Age restrictions relevant to Sections 8, 9, 10, and 13 of the 1979 questionnaire are discussed within the User Notes in the "Age" section of this guide.

Federal Funding Sources/Types of Service Providers: Users should note that the sources of federal funding and types of service providers reported by participants did not always keep pace with legislative reality. The Manpower Development and Training Act was replaced by the Comprehensive Employment and Training Act (CETA) in 1973, which in turn was replaced by the Job Training Partnership Act (JTPA) in 1982. Yet participation in defunct federal programs was reported as late as 1985 for MDTA and 1986 for CETA. Although JTPA funding of local programs occurred as early as 1983–84, JTPA as a category in the government-sponsor questions is presumably included under 'Other' and appears as a coding category within the 'Part of CETA/JTPA or WIN' questions beginning in 1986. Finally, although federally funded, these jobs programs were locally operated under a variety of names; appropriate federal funding sources may or may not have been known to the recipient.

Job Placement Questions: The wording of questions on job placement within the *Employer Supplements* and the "Government Training" sections of the questionnaires changed beginning with the 1984 survey. Prior to 1984, a question on whether the government training program in which the respondent had participated had placed the respondent in a job "outside" the program was followed by a question on whether that outside job placement had occurred to a CETA or PSE (Public Service Employment) job

and, if so, whether that subsidized job had been followed by another (presumably) unsubsidized job placement. Beginning with the 1984 survey and the enactment of JTPA, this rather complex series of questions was dropped and only two questions were asked (1) whether respondents had been placed, as part of their training, in a subsidized on-the-job training (OJT) or work experience slot and (2) whether respondents had been placed in a job by the program after completion of training. These OJT questions supplement the already-asked, on-the-job training questions in the services provided sections.

Comparison to Other NLS Surveys: In each round of the NLSY97 respondents were asked about whether they participated in government training programs. Additional questions asked for specific programs and their duration. The original Older Men survey, conducted in 1966, asked the respondents about any vocational training programs they attended while in the Armed Forces. For the Young Men, details concerning training received in the military (other than basic training) were gathered in the 1966, 1969, 1971, 1976, and 1981 surveys. In 1975, among other additions, a new provider, "government program or agency", was added to the training section of the Young Women survey. Beginning in 1984, a new category, "government agency", was added to the training section of the Mature Women survey Refer to the *NLS Handbook* or each cohort's *User's Guide* for exact survey years and the types of information available.

References

Crowley, Joan E. "Government Sponsored Employment and Training." In *Pathways to the Future: A Report on the National Longitudinal Survey of Youth Labor Market Experience in 1979*. Michael E. Borus, ed. Columbus, OH: CHRR, The Ohio State University, 1981.

Crowley, Joan E. "Government Employment and Training Programs: Comparison of Characteristics, 1978–79." In *Pathways to the Future: A Longitudinal Study of Young Americans. Preliminary Report on the 1980 Survey.* Michael E. Borus, ed. Columbus, OH: CHRR, The Ohio State University, 1981.

Crowley, Joan E. "Government Employment and Training: Changes FY 1979-FY 1980." In *Pathways to the Future: A Longitudinal Study of Young Americans. Preliminary Report on the 1981 Survey.* Michael E. Borus, ed. Columbus, OH: CHRR, The Ohio State University, 1982.

Crowley, Joan E. "Long Term Outcomes of Government-Subsidized Employment and Training Programs." In *Pathways to the Future: A Report on the National Longitudinal Surveys of Youth Labor Market Experience in 1982.* Paula Baker et al. Columbus, OH: CHRR, The Ohio State University, 1984.

Hahn, Andrew and Friedman, Barry. "Did the CETA System Work for Disadvantaged Youth? An Overview of Program Impacts after Program Participation." In *The CETA Youth Employment Record: Representative Findings on the Effectiveness of Federal Strategies for Assisting Disadvantaged Youth.* A. Hahn & R. Lerman, eds. Final Report to the U.S. Department of Labor, 1983.

Willke, Richard. "An Evaluation of Outcomes for Post-School Participants in Government Employment and Training Programs with Attention to Selectivity Bias." In *Pathways to the Future, Volume 5: Report on the National Longitudinal Surveys of Youth Labor Market Experience in 1983.* Paula Baker et al. Columbus, OH: CHRR, The Ohio State University, 1985.

Willke, Richard. "Participation in Government Employment and Training Programs and Patterns in Employment, Income, Education, and Welfare." In *Pathways to the Future, Volume 6: A Report on the National Longitudinal Surveys of Labor Market Experience in 1984.* R. D'Amico et al. Columbus, OH: CHRR, The Ohio State University, 1986.

NLSY79 Children

A series of quarterly work history variables has been created that indicate whether the child's mother was employed at a government-sponsored job for up to four quarters preceding the birth of her child and up to 20 quarters following the birth. For young adults, government sponsorship of a training program is incorporated within the regularly asked "Other Training" questions. Through 1998, all respondents are asked for information on multiple training programs in which they were enrolled. Questions differentiated between *where* respondents received their training (e.g., through an apprenticeship program, a business school, a vocational institute, or vocational rehabilitation center) and *what* organization paid for the training program (e.g., self, employer, JTPA, TAA, Job Corps, WIN, the Veteran's Administration, Vocational Rehabilitation, etc.). Information was collected for each training program on dates of participation, total weeks enrolled, whether the respondent completed the program, whether the training was used on their most current job or helped the respondent obtain a different job and/or promotion, hours/week spent in training, and services provided by the training program. Beginning in 2000, detailed information was asked only of the current or most recent training program.

Survey Instruments & Documentation: Data were derived from the cover page of the yearly *Employer Supplements,* the survey instrument completed for each of up to five employers for whom a respondent worked since the date of last interview. The constructed quarterly maternal work history variables are derived from the array on the main youth work history file.

The young adult training questions are located in Section 11 of the 1994, 1996, 1998, 2000, and 2002 questionnaires.

Data Files: The constructed quarterly work history variables are located in the "Work History" area of interest on the child data file. The young adult training questions can be found in the "Training" area of interest.

4.20 Health

NLSY79

NLSY79 questionnaires contain a variety of health questions. NLSY79 health sections are divided into two periods. From 1979 to 1996, most of the questions focus on health concerns that restrict or inhibit the respondent's ability to work. From 1998 on, as respondents reached middle age, the health section was expanded to provide a baseline profile of the respondent's overall health as they turn 40 years old.

Ability to Work

From 1979 to 1982 a standard set of health questions was administered during each survey. The focus of these questions was on health problems that restricted or prohibited a respondent's ability to work. For example, in each year the survey asked three questions: (1) Respondents not currently working were asked "Would your health keep you from working on a job for pay now?" (2) All respondents were asked, "(Are you/Would you be) limited in the kind of work you (could) do on a job for pay because of your health?" (3) All respondents were asked "(Are you/Would you be) limited in the amount of work you (could) do because of your health?" If an individual answered 'yes' to being limited in either the kind or amount of work they could do because of health, the NLSY79 then probed for specific details on the health ailment.

While information is collected on up to three health conditions, the respondent is asked to identify which of the conditions is the "main" condition. Follow-up questions regarding the main condition include the month and year the condition began and how long the respondent has been limited in this way. In addition, the name of the condition is gathered and later coded using a modified version of the International Classification of Diseases (ICD-9) codes taken from the World Health Organization, *International Classification of Diseases,* Ninth Revision, 2 vols., WHO, Geneva, 1977 (vol. 1) and 1978 (vol. 2). See Attachment 8 of the *NLSY79 Codebook Supplement* for a detailed description of these codes.

Additional details collected on respondent health conditions include information on whether the youth ever saw or talked to a medical person regarding the condition, what the cause of the condition was, what part of the body was affected, and when the respondent first noticed the condition. If the condition was caused by an accident or injury, the date of the accident/injury, as well as information on the parts of the body that were hurt, was collected. A description of the coding scheme used for the body part information is also contained in Attachment 8 of the *NLSY79 Codebook Supplement*.

From 1983 to 1987, the amount of data collected on health was significantly reduced to basic information on whether the respondent had a work-limiting health problem and the duration of any limitation. While this same short series of questions has been asked in virtually every NLSY79 survey, significant additions were made in the late 1980s. For example, beginning with the 1988 survey, an extensive series of

questions was initiated on work-related injuries or illnesses. The respondent is asked specifically for the most recent and most severe work injury. The questions are asked to determine the nature and extent of the condition, whether or not the respondent received Workers Compensation payments, and the impact of the condition on the respondent. A sample of the impact questions include whether there were lost wages, missed days at work, or whether the worker had to quit work, change occupations, or was fired from the job, etc., as a result of the injury/illness. Finally, beginning in 1998, all respondents are asked about their participation in regular physical activity on and off the job.

Health Profile

Examining the raw unweighted data shows that approximately three percent of NLSY79 respondents each year are limited in the *amount* of work they do by health reasons. Additionally, approximately three percent of all respondents are limited in the *kind* of work they do by health problems. While these questions provide a detailed picture of a respondent's current health restrictions, they offer little insight into chronic health problems that will affect their labor force activity in the future. For example, a serious ailment that slowly develops over time will not be picked up by these questions until the respondent actually drops out of the labor market. For this reason and because of the aging of the cohort, an extended health module was administered to respondents age 40 and over and general questions on physical activity and exercise were administered to all respondents beginning with the 1998 survey. This extended module was created to provide a baseline health profile of the respondent for examining the interrelationship of health and labor market activity in advance of the retirement years. To broaden the usefulness of the NLSY79 health data, this extended module, comprising four major parts, is not restricted to work-related health problems, and all questions are asked irrespective of the respondent's labor force status.

The first part of the 40-and-over module asks respondents to answer the Center for Epidemiological Studies Depression Scale (CES-D). This scale measures symptoms of depression, discriminates between clinically depressed individuals and others, and is highly correlated with other depression rating scales (see Radloff 1977; Ross and Mirowsky 1989). The 1998 and 2000 surveys collected a reduced set of seven items from the original 20 item CES-D scale. The number of items was increased to nine in the 2002 survey; the full 20-item scale was last administered in 1992.

The second part of the extended health profile asks respondents when they last saw a health care professional. These questions provide researchers with the date of the respondent's last physical exam and last visit to the doctor for any reason. Information on individuals who never visit a doctor is available as well. This subsection also gathers information about the health and life status of the NLSY79 respondents' biological parents. Questions which ask respondents about their parent's health are designed to improve researchers' understanding of hereditary health problems. Respondents are asked whether their

biological parents are alive and if not, their parent's age at death and cause of death. Information is also gathered about any major health problems afflicting either parent.

The third section reproduces the SF-12 scale, a 12-question health survey designed by John Ware of the New England Medical Center Hospital. The SF-12 is designed to provide a measure of the respondents' mental and physical health irrespective of their proclivity to use formal health services. Detailed information on the SF-12 is available from QualityMetric Incorporated (http://www.sf36.com/ or 640 George Washington Highway, Lincoln, RI 02865). QualityMetric also provides researchers with software and algorithms to score the SF-12.

The last section of the 40-and-over health module asks respondents if they suffer from an extensive list of health conditions. Respondents with certain major conditions, such as cancer, hypertension, diabetes, etc., are probed on the date at which the condition was first diagnosed and other details relevant to the particular condition.

Respondent Characteristics

A respondent's height and weight are natural indicators of health. Height questions were asked in 1981, 1982, 1983 (only to females who were ever pregnant), and 1985. Users should exercise caution because the height questions have been collected in a variety of formats. The 1981 question combines feet and inches into a single number. Hence, respondents range from 400 (four feet and zero inches) to 611 (six feet and eleven inches). The 1982 and 1985 questions convert all answers into just inches. The 1983 height questions are found under two different reference numbers: female height in feet is provided in R09989., while height in inches is provided in R09990.

Since weight fluctuates more than height, questions on weight are asked more frequently. Weight questions appear in the 1981, 1982, 1985, 1986, 1988–90, and 1992–2002 surveys. Weight in all years is recorded in pounds. The weight data are normally distributed from 50 to 400 pounds in all years except 1989. In 1989, there are 11 individuals marked as weighing 996 pounds. This number is not a true weight but rather an out-of-range code. Users are advised to examine height and weight distributions prior to analysis in order to make informed decisions as to how to handle outliers.

Respondent hair and eye colors were collected during the 1985 interview and information on whether they were born left or right handed was collected in the 1993 interview.

Health Insurance

The NLSY79 provides researchers with a variety of insurance information. Almost every survey asked working respondents if their current or most recent job provided health insurance benefits. Table 4.20.1

is taken from the fringe benefits series and shows that, over time, an increasing number of NLSY79 respondents work in jobs that are covered by health insurance benefits. While only 39.3 percent were working in covered jobs in 1979, by 2002 more than 82 percent had health insurance available.

Table 4.20.1 Percentage of Respondents Whose Current or Most Recent Job Provided Health Insurance Benefits

Year	Percentage	Year	Percentage
1979	39.3	1990	75.9
1980	56.8	1991	76.6
1982	55.6	1992	76.4
1983	66.4	1993	76.8
1984	68.9	1994	72.6
1985	69.8	1996	75.6
1986	71.8	1998	78.4
1987	74.4	2000	80.3
1988	72.6	2002	82.1
1989	75.2		

There are a number of problems with using the fringe benefits question series in the CPS and ES section to understand and track health insurance coverage. First, respondents who are not working are excluded from these questions. Second, not all health insurance is employer provided. Some individuals pay directly for health insurance, while others are covered by their spouse's or partner's plans. Lastly, while an employer may offer this benefit, workers might not participate in the plan and therefore may not be aware of its availability. To overcome these limitations, the health section of the NLSY79 was expanded beginning in 1989 to directly ask about sources of health insurance coverage.

The health section of the questionnaire in 1989, 1990, and 1992–2002 asks respondents if they are covered by a health plan. If the respondent answers "yes," the interviewer asks who pays for the plan. Responses include current employer, previous employer, spouse's employer, purchased directly, and Medicaid or welfare source. If the respondent is married, the same set of questions on medical coverage are asked about the wife or husband (and beginning in 1994, about the non-marital, opposite-sex partner, if any). Additionally, if the respondent has any children the same questions are asked about the children's health insurance coverage.

Related Variables: Additional information on the relationship between health and labor force status can be found in the CPS section. The CPS section contains questions allowing respondents to state that they

are not in the labor force because of health problems. Unfortunately, these questions do not describe the specific problem, when the problem started, or how long the problem has lasted. Information on substance use (smoking, drugs, alcohol) is collected as part of a largely self-administered report in selected survey years. See the "Alcohol Use," "Cigarette Use," and "Drug Use" sections of this guide for further information on these topics. Information on health practices related to sexual activity and pregnancy can be found in the fertility section of selected surveys. For further information see the "Fertility" and "Sexual Activity and Contraception" sections of this guide. Information on self-perceptions and self-esteem measures can be found in the "Attitudes and Expectations" section of this guide.

Survey Instruments: Health and health insurance questions are located within the "Health" section of each questionnaire.

Documentation: Documentation augmenting the questionnaire and codebook include Attachment 8 in the *NLSY79 Codebook Supplement*.

Data Files: Data related to health can be found in the following NLSY79 main file areas of interest: "Health," "Alcohol," "Drugs," "CPS," "Birth Record," "Birth Record xxxx," and "Misc. xxxx."

Comparison to Other NLS Surveys: Respondents in each cohort have answered questions about their health; however, the specific questions have varied widely as the health sections were modified to reflect the respondents' varying life cycle stages. Health insurance information has been collected from respondents in all cohorts except the Young Men. The round 1 NLSY97 interview included a series of questions, addressed to youths born in 1983, on respondents' health practices and knowledge. Users should refer to the *NLS Handbook* or the appropriate cohort's *User's Guide* for more precise information.

References

Radloff, Lenore. "The CES-D Scale: A Self Report Depression Scale for Research in the General Population." *Applied Psychological Measurement* 1 (1997): 385–401.

Ross, Catherine E. and John Mirowsky. "Explaining the Social Patterns of Depression: Control and Problem Solving – or Support and Talking?" *Journal of Health and Social Behavior* 30 (June 1989): 206–9.

NLSY79 Children

Maternal prenatal care information and health-related characteristics are also provided on the NLSY79 Child and Young Adult data set. On this data file, information derived directly from the mother in the fertility section of the main NLSY79 youth questionnaire is linked appropriately to individual biological children. This information includes birth dates of children, postnatal care, infant health care, and health

insurance information. A detailed written and statistical description of these data can be found in Center for Human Resource Research (1991).

As part of the child data collection, the *Mother Supplement* (MS) survey instrument includes a selection of scales measuring the child's temperament, motor and social development, and behavior problems. This information is obtained from the mother. The How My Child Usually Acts/Temperament scale forms a measure of temperament or behavioral style over the past two-week period for each child under age seven. The Motor and Social Development Scale measures motor-social-cognitive development for children under age four. The Behavior Problems Index elicits mother ratings of children four years of age or older in areas of problem behavior such as hyperactivity, anxiety, dependency, aggressiveness, and peer conflict.

Information on the child's health is also collected from the mother in the *Child Supplement* (CS) survey instrument. The mother is asked to report on the child's health limitations, accidents and injuries, medical treatment in the last twelve months, dental care, and health insurance coverage. The child's height and weight at the time of interview are either measured by the interviewer or reported by the mother. Beginning in 1996, the mother also answered several questions about whether the child is right- or left-handed.

The health section of the young adult CAPI questionnaire gathers information on types of health limitations, accidents and injuries, number of hospitalizations, height, weight, and insurance coverage. Young adult respondents who are not in their mother's household are asked additional questions about illnesses and routine medical care. For young adult respondents who are living in their mother's household, the mothers are asked a series of questions on the young adult's health comparable to those in the young adult CAPI questionnaire. Questions on whether the young adult is right- or left-handed were asked in 1996 and 1998 for all respondents.

For additional information on the NLSY79 Child and Young Adult data collections, users should consult the *NLSY79 Child & Young Adult Data Users Guide*.

Survey Instruments: Fertility sections of main youth questionnaires, *the Young Adult Self-Report Booklet*, the Health section of young adult questionnaires, the *Child Supplement* and the *Mother Supplement*.

Documentation: *NLSY79 Child & Young Adult Data Users Guide*.

Data files: See areas of interest "Natal," "Mom Wellness," "Birth Record xxxx," "YA Self," "Health," "Assessment xxxx," "Child Supplement xxxx," and "Mother Supplement xxxx."

References

Center for Human Resource Research, "Maternal-Child Health Data From the NLSY: 1988 Tabulations and Summary Discussion," CHRR, The Ohio State University, Columbus, OH: 1991.

Center for Human Resource Research, *NLSY79 Child & Young Adult Data Users Guide*, CHRR, The Ohio State University, Columbus, OH.